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Address.

THE MEDICAL PROFESSION.*

THE CAUSES OF ITS DIVISION INTO DISCORDANT ELEMENTS AND THE REASONS I AM NOT A HOMEOPATH.

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Charity suffereth long and is kind.

The invitation from the officers of the Dunham Medical College to address you on "The Causes of Division of the Medical Profession into Discordant Elements and the Reasons Why I Am Not a Homeopath," was extended, I am sure, in friendly spirit and for worthy purposes; and it was accepted in the kindly hope and expectation of being able to show that the "Causes of Division" alluded to are by no means as numerous and formidable as they were forty years ago; that they are getting less numerous and formidable every year; and that even now they are so insignificant as to be no barrier to the unification of the profession if this were seriously desired by both parties.

I need not be told that the acceptance of this invitation involves delicate responsibilities; for I already know that my hosts—some of whom are warm personal friends—have a right to expect that I shall be courteous and fair, and my own students who are present have an equal right to expect that I shall, like the "Beast" of Revelation, "Cry aloud and spare not."

The teachers and students of homeopathy before me are well aware that they have come to "face the music" and I, to furnish it. To avoid not only the fact, but even the appearance of unfriendliness to you, young gentlemen, I shall call upon well-known adherents of your "school" to do the principal part of the talking; and if they say unpleasant things you are to remember that they are your seniors and presumably know more about the subject than you do. You are to remember, too, that they are your friends, not mine. What I shall say from my own mind will be said in good temper and with good intent, with earnestness, perhaps, for that is my natural mode of utterance, but without prejudice, without unkindliness, and without stronger desire of any kind than that of setting forth the truth as I see it.

The word "prejudice" means "an adverse opinion formed without due examination of the subject." I have been accused by the editor of the *Medical Century*, of this city, one of your most rancorous writers, who is doing more than any other ten men of my acquaintance to keep the medical profession divided into discordant elements—not only of filling the minds of my own students with prejudice, but their hearts with hatred, against homeopathists and homeopathy; but I am sure that I should not have been invited to address you if your teachers believed these things to be true. They are not true. I know of no reason why I may not have reasonably intelligent opinions on homeopathy, after studying it and lecturing upon it off and on for twenty years, if you, young gentlemen, may know so much about it that you can decide to become its adherents before you have ever read a line in a medical book. You will doubtless find that my opinions are wrong, but I hope to be able to convince you that they have not been formed without due examination of the subject and that they are not the offspring of hatred.

The first step in the demonstration of any problem is a clear presentation of its terms. About a century ago Samuel Hahnemann assailed with abusive epithets and denunciations the methods of practice that were then in favor, and forced upon the attention of the world a new method which he termed "homeopathy." Those who accepted his views and became his disciples he designated "new-school doctors," and those who did not, he declared to be "allopaths," or "old-school doctors."

The tenets of homeopathy as announced by him were warmly espoused by his early disciples, but they were rejected with derision and contumely by a large majority of his professional contemporaries. At this time the "discordant elements" into which the profession was divided were separated by an "impassable gulf," as Hahnemann expressed it. But since then, on the one hand, important changes have occurred in the methods of practice of the "old school," and, on the other, the "new school" has been gradually getting away from the precepts and practices of its founder; so that now there is less difference between a representative "new-school doctor" and a representative "old-school doctor" on questions of therapeutics than there is between the extremes of opinion among the homeopathists themselves. My address will be devoted largely to the demonstration of these facts.

The first precept proclaimed by Hahnemann, and the corner-stone of his "system," is the "law of similars," or the "law of cure," which is tersely expressed in the well-known formula,

SIMILIA SIMILIBUS CURANTUR.

Hahnemann declares that "diseases exhibiting certain symptoms are to be cured only, and are cured invariably, by medicines which produce similar symptoms on a healthy person. "It is not possible," he says, "to perform a cure but by the aid of a remedy which produces symptoms similar to the disease itself." "It is an infallible—an unerring law." "The great sole therapeutic law." "A mode of cure founded on an eternal infallible law of nature." (Organon.) He also declares he is the discoverer of this law. "The great art of healing," he says, "remained undiscovered

*An address delivered before the faculty and students of the Dunham Medical College (Homeopathic).

until my time." This claim, if true, constitutes the right of homeopathy to the name "new school." But the claim is not true. Let me prove to you that the so-called "law of similars" was common property hundreds of years before Hahnemann was born. (Born 1755; died 1843.)

Hippocrates, who died B.C. 357, two thousand years before Hahnemann was born, wrote: "Some diseases can be treated best by contraries and some by similars." "To cure mania give the patient a draught made from the root of mandrake in a smaller dose than will induce mania." Whether this idea originated with Hippocrates, or was merely appropriated by him, is not known.

Theophrastus, writing about B.C. 300, says: "Diseases are cured by remedies which affect the organism similarly to the disease."

Paracelsus, who died A.D. 1551, two hundred years before Hahnemann was born, declared that "A hot disease has never been cured by a cold remedy, nor a cold disease by a hot remedy. Like attacks its like and never its contrary."

Basil Valentine, whose writings were published about 1602, one hundred and fifty years before Hahnemann was born, announces that "Like cures like but contraries do not cure."

Stahl, who died in 1734, twenty-one years before Hahnemann was born, asserts: "I am persuaded that diseases are subdued by agents which produce a similar affection."

Shakespeare, born in 1564, one hundred and ninety years before Hahnemann, has one of the characters in the drama "Troilus and Cressida" say: "Tut man; one fire burns out another's burning. Put thou some new infection in thine eye and the rank poison of the old will die."

It is quite plain then, the conception that "like cures like," did not originate with Hahnemann. He merely appropriated it and claimed it as his own. Now, contemplate the absurdity of establishing a "new school" on the basis of a theory known to be over two thousand years old, and of designating physicians who would not be governed by it any longer as "old-school doctors!" Is it not plain that this epithet really applies to homeopathists themselves?

It can not in reason be maintained that Hahnemann had never read of the doctrine of similars, for he was a man of great literary attainments and earned his living by literary work, for many years. I think that there are few men in the world to-day as well versed in the history of medicine as Hahnemann was. It was not ignorance, then, which led him to claim the doctrine of similars as his own invention; it was dishonesty. It is not ignorance on the part of the homeopaths of to-day which leads them to claim the doctrine of similars as the discovery of Hahnemann and the peculiar and exclusive property of their sect; it is dishonesty.

Although Hahnemann discovered nothing but an ancient theory, it must be admitted that he set it forth in stronger language than any of his predecessors, not even excepting his prototype, Paracelsus. Prior to his time it had been regarded as a general guide to the selection of medicines; but he declared it to be an "unerring law," "an infallible law" and "the sole law of cure." If these declarations are true, Hahnemann must be honored as a great discoverer; but if they are not true and the "law" merely represents one kind of curative impression and other kinds are known, he discovered nothing but a theory that is as old as the history of medicine. In view of the quotations I have read to you it must be amusing to learn that "old-school doctors" are sometimes criticised by their homeopathic brethren for prescribing medicines according to the "law of similars" on the ground that they are robbing the "new school" of the honors of the resulting cures. And yet they are criticised often and with the semblance of righteous indignation. A fairly representative instance will be found in Marcy's work on "Practice." The distinguished author says: "Gentlemen of the old school, your practice too often belies your profession; you pretend to be allopathists and antipathists while constantly administering medicines after the method of the homeopathists. Where is your pride? Where is your consistency? You have received your bundle of ideas from Hippocrates and Galen to whom you pay reverent allegiance. You disdain innovations and despise discoveries and improvements. You have withstood the changes of more than two thousand years, and by your powerful dicta have continually discouraged all original induction and endeavored to crush in the bud every advancement in medical knowledge."

When I tell you that there are not three physicians in Illinois who are registered as, or pretend to be, allopathists, and not one who pretends to be an antipathist; that I have never in my life seen, and you have not seen, one line in any "old-school" text-book or periodical, that endorses "allopathy," "antipathy" or any other "pathy" whatsoever; and that I have never known, and you have never known, one "old-school" medical teacher to pay a minute's attention to "pathies," except to condemn them, every one; I will leave you to form your own estimate of your distinguished author's veracity. Homeopathic literature is full of such senseless vituperation. You can hardly pick up a book or a periodical without finding some,—and our Chicago periodicals are not surpassed, so far as I know, in respect to either the quantity or the mendacious quality of the output. The malicious falsehoods about members of our profession whose only crime is their inability to see in the doctrine of similars an infallible guide to therapeutics, have the effect, and, I believe, are intended to have the effect, of keeping the medical profession divided into discordant elements. I am proud to be able to say that there is nothing like this spirit, and that nothing like it would be tolerated, in the literature of the "old-school" doctor. I will agree to find in any one of half a dozen modern homeopathic text-books more denunciation, misrepresentation and abuse of "allopaths," "antipaths," and "old-school doctors," and more bombastic expositions of therapeutic creed, than can be found in relation to homeopathy and homeopathists in all the "old-school" text-books that have been published in a quarter of a century. Gentlemen, will you invite me to make a public comparison of proof with you? I am at your service. I believe that there are more slurs and falsehoods printed in the *Medical Century* of Chicago, alone, in relation to "old-school" doctors and institutions, than can be found in relation to homeopathists and their institutions, in all the "old-school" periodicals in the world, for the same period of time. Do you invite me to make a public showing of the proof?

But to return to our learned author, Professor Marcy: When we received our "bundle of ideas from Hippocrates" we discovered "similia" in it,—and,

although we do not attach much value to the discovery, we feel obliged to claim it merely to maintain the appearance of "reverent allegiance" to the old man. The imputation that we "disdain innovations and despise discoveries" and endeavor to "crush in the bud every advancement in medical knowledge" is answered passably well by Harvey, Jenner, Chamberlin, Laennec, Louis, McDowell, Sims, Bernard, Brown-Sequard, Bichât, Charcot, Von Graefe, Helmholz, Darwin, Virchow, Bright, Koch, Löffler, Behring, Laveran, Senn, Murphy, and a few others, and so it is hardly necessary that I should say anything about it. But by the way: Isn't there a "new-school" doctor who is generally honored by the medical world for his contributions to exact knowledge, whom we could add to this list? Isn't there *one*? Listen to the answer of the *Homeopathic U. S. Medical and Surgical Journal* for 1867: "We want solid acquirements everywhere; we want in our schools more pathologists and learned physicians, as Bennett, Watson, and a score of others; writers, for instance, on female diseases and their surgical and mechanic treatment; and writers on obstetrics, such as Sims, Simpson and Barnes. When will issue from our ranks writers of such worth as Rayer, Casenave and Wilson on diseases of the skin? Louis, Andral and Skoda on diseases of the chest? West on diseases of children? Ricord on syphilis? Or such pathologists as Virchow, Rokitansky or Rock? Homeopathy is a humiliated beggar to allopathy. Produce! Produce! Were it the pitifullest infinitesimal fraction of a product, in God's name produce it!"

Let my friend, Dr. Campbell, formerly of Joliet, speak: "So deeply are we indebted to the old school for their important discoveries that we are obliged, in justice to ourselves and to our patients, to take their journals and buy their books in order to keep pace with the progress of medical science. True homeopathy appropriates and utilizes everything that allopathy acquires." (*Investigator*, 1, 7, 295).

If you want further evidence on this point, look over the list of the text-books you are using this very session, and when you are through, examine the announcement of the Chicago Homeopathic College, and you will find in it "old-school" authorities recommended by the faculty, as follows:

Anatomy: Gray.
Physiology: Foster, Landois and Sterling.
Histology: Satterthwaite.
Bacteriology: Abbott, Fraenkel.
Pathology: Ziegler, Green.
Practice: Osler, Loomis.
Surgery: American Text-Book.
Diagnosis: Da Costa, Vierordt.
Mental and Nervous Diseases: Ross.
Gynecology: Garrigues.
Obstetrics: Lusk.
Jurisprudence: Reese.
Laryngology: Bosworth.
Hygiene: Parkes, Rohé.
Dictionary: Gould.

Gentlemen of the "new school," kindly locate your own pride and consistency.

Now let us return to the "law of similars." The idea embodied in it has the merit of antiquity. From time immemorial it has been set forth in disquisitions on the therapeutic action of medicines. There is no reason why those who are trying to honor Hippocrates should not accept it if they believe it to be true. Indeed, many do believe that there is some truth in it. I believe it. But it seems to me impossible that the "law" should be the only guide to the cure of diseases, because it limits the efforts of the physician to the effacement of symptoms, and makes no provision whatever for dealing with *causes* and *pathologic products*, nor for anticipating and *preventing* complications. All it requires you to do is to wait for symptoms to appear, and when they do appear, to combat them by giving the patient a medicine which produces similar symptoms.

Hahnemann is explicit on this point. He says: "The ensemble of symptoms is the sole object that a physician ought to have in view in every case of disease; for the power of his art is to be directed against that alone in order to cure it and transform it into health." "Only that which is necessary for a physician to know of disease and what is fully sufficient for the purpose of cure is rendered evident to his senses." "It is an indubitable truth that the sum of all the symptoms in each individual case of disease is the sole guide to direct us in the choice of a curative remedy."

Hence, you see, it is not necessary to remove causes, nor even to know their nature. If a patient have convulsions, it is of no consequence to know whether they are due to uremia, scarlatinal infection, intestinal worms, acute indigestion, hydrocyanic acid or strychnin; or if he have intermittent fever, it is of no consequence to know whether it is due to malarial infection, pyemia, or a gall-stone in the common duct. It will be all-sufficient to treat the symptoms. Now, in my view, the first demand to be met in every case of disease is to remove the cause, if possible. But Hahnemann asks us to believe that if we try to obliterate the effects, the cause will cease to act. Furthermore, the "law" makes no provision for obviating complications. If a patient have acute nephritis and the usual liability to dropsy, convulsions, coma and acute dilatation of the heart, it is not proper to guard against these dangers; the scientific and infallible method is to wait till they confront you, and then to treat them by the administration of "similars." Nor is it necessary, according to this "law," to deal with pathologic products—as a collection of pus in the liver. Just give the patient something that's good for chills, fevers and sweats, and bid him God-speed.

These ideas have never been accepted by "old-school doctors," and they are now repudiated by every one of Hahnemann's professed disciples.

Intelligent physicians know that symptoms are merely those elements of disease that come within the cognizance of patient or physician. They also know that there are elements which are hidden from view—such as a stone in the kidney, a gangrenous appendix, a collection of pus in the brain—whose existence is inferred by a process of reasoning. Whether an element be perceptible or hidden, demonstrated or inferred, does not affect its claim to attention. The successful physician is usually the one whose knowledge and judgment lead him to correct inferences as to the location and nature of the hidden element. It is vastly more satisfactory to deal directly with a gangrenous appendix than it is to limit your efforts to the administration of medicines which are good for collapse. Not one of your professors here, young gentlemen, will now dare to stand before you and say: "Only that which is necessary for a physician to know of disease and what is fully sufficient for the purpose of cure is rendered evident to his senses."

There is no difference whatever that I can see between "new-school" and "old-school" doctors with respect to readiness to remove a cause, or a pathologic product, or to protect a patient from impending complications—the Hahnemannic "law of cure" to the contrary, notwithstanding. To say less than this of my homeopathic brethren would be to imply that they put creed above the sanctity of human life.

I trust it has been made clear that the "law of similars" is not the only guide to the treatment of diseases, and that other elements must receive due consideration besides symptoms.

When speaking to my own students about the "law of cure" I say, Hahnemann did not claim that *same* cures *same*—but that "like cures like." Now, likeness is not identity. If two things or conditions are merely alike, but not identic, there is some difference between them by which they can be distinguished from one another. If a medicinal impression be identic with a morbific impression it will not fail to increase the force of that morbific impression but if it be merely like the morbific impression—that is, different from it in some respects—it *may* influence it favorably. And since identity is hurtful, and "difference" is essential to a remedial effect, I infer that the remedial effect is produced by the "difference."

But when I try to ascertain how close the "likeness" must be, according to the Hahnemannic idea, in order that the medicine shall be infallibly curative, I find myself in trouble. Turning to homeopathic books for information I find in Hahnemann's the statement that "smallpox cures dysentery;" hence, I infer that these diseases are near enough alike to meet the requirements of the "law." And turning to Guernsey's work I find the statement that *Pulsatilla* is the "similimum," that is, the symptoms produced by it on a healthy person are "like" the symptoms of "female derangements, hysteria, rheumatism, dyspepsia, measles, insomnia, ague, hemicrania, toothache, vomiting, constipation, colic, diarrhea, hemorrhoids," etc.; that *Charcoal* is the similimum of "rheumatism, vertigo, chilblains, urticaria, herpes, glandular swellings, typhoid fever, chapped lips, anorexia, looseness of the teeth and consumption;" and that *Lachesis* is the similimum of "nervous disorders, paralysis, convulsions, weakness of memory, fits, lockjaw, toothache, gangrene of the tongue, swelling of glands and abscess of the liver." Then I have to admit that I am not acute enough in seeing likenesses to make a good homeopath. The "law" is charmingly comprehensive—so comprehensive as to permit a physician to give any medicine, or any number of medicines, in any dose or doses, in any disease. But let us examine the present status of opinion concerning its "universality" and "infallibility," as set forth by some of its most authoritative exponents.

Prof. R. N. Foster of this city, late president of the Illinois State Homeopathic Society, said in his presidential address, referring to the "law": "It covers a wide field, but not so much ground as its earlier advocates had hoped." Ah! it is not universal, then.

Prof. C. Wesselhoeft, in a paper read before the Southern Homeopathic Medical Association (*New York Medical Times*, January, 1892), admits that "homeopathists in order to join the ranks of a united profession may have to recede somewhat from the too premature axiom of the universality and infallibility of our law of similars." That is quite true.

Dr. D. A. Gorton (Drift of Medical Philosophy 1875) says: "The law of similars is but a fragment of the art of curing diseases; Hahnemann was mistaken as to its importance;" and he adds that "there are very few genuine homeopaths in existence."

Dr. J. P. Dake (*Hahnemannian Monthly*, July, 1894) says: "We can not imagine a physician who is entirely limited to the homeopathic use of drugs." That is my own fix, Doctor.

Dr. Charles S. Mack (Philosophy in Homeopathy, 1890) "explains" the matter very happily. He says the "law" is the only possible law of cure. When medicines are prescribed in accordance with it patients are "cured" by force of medicinal action; but when medicines are given in violation of the "law," and the patients nevertheless get well, the patients merely "recover." He admits, however, notwithstanding the sufficiency of the "law," that "to-day homeopathists are, more than formerly, availing themselves of practices which are distinctly not homeopathic."

Henriques (p. 240), in writing of the principles governing the "old" and the "new" schools, says: "Neither can claim the exclusive dignity of an universal law of therapeutic action. Both are extremely useful, each in its respective and appropriate sphere as *empiric rules* of practical guidance. There can be but one absolute principle of therapeutic art, which may be termed 'counteraction' operating by a twofold law *'contraria contrariis'* and *'similia similibus.'*" Just so. I do not quite understand the learned author, but if he is trying to crawfish from "similia," I agree with him.

Dr. Parsons (*Investigator*, March, 1876), in a paper read before the Illinois Homeopathic Association, said: "The success of the physician does not depend so much upon his ability to prescribe in accordance with the homeopathic philosophy as on his ability to win the confidence of the community."

Now, that's just what I say. Sail in without reference to anybody's theories, win the confidence of the community by doing good, faithful work, draw upon all the resources of nature and art for your remedies, but be honest about it; don't claim to be a disciple of Hahnemann, my dear sir, when you are doing that.

Dr. E. Perkins (Ibid., 2, 12, 471) says: "If we relied less on homeopathy and more on common sense, it would be more creditable to us." Dr. Perkins, here's to your good health, sir! Them's my sentiments.

Professor Holcombe (Ibid., 1, 3, 134) says: "There are modes of cure which are not explicable in our philosophy."

Dr. Franklin (Ibid., 1, 3, 23) says that "Homeopaths no longer practice homeopathy."

Another writer in the same periodical (1, 7, 298) says: "Let us acknowledge that the homeopathic law is not applicable in all cases of disease, and does not comprehend every means of cure."

The North American Journal of Homeopathy declares in its prospectus that it will maintain "similia" as the only therapeutic law, and in the very first number Professor Hedges of Chicago, writing on the treatment of a bite by a rabid dog, recommends as measures of prevention of hydrophobia, that the part be excised and cauterized and that the patient be required to take belladonna and bromid of potassium, "in free doses," for a period of six months.

Prof. Woodyat of this city (*Investigator*, 1, 2, 50)

deplores the uselessness of homeopathy in the treatment of diphtheritic ophthalmia and quotes Stellwag, Green, Wells, Carter and Hutchinson—all robust "old-school doctors"—in justification of the treatment he employs.

Dr. S. C. Bumstead of New York, in an essay read before the American Institute of Homeopathy, said: "We do not hesitate to proclaim our belief in the law of similars; but we believe also that methods of treatment are often preferable which can not by any hocus-pocus be classed under it."

Dr. Temple of Chicago (*Investigator*, 1874, 399), says: "For thirty-one years I have been a close observer of homeopathic practice. For the last ten years I have grieved to witness departures from the faith by many of our physicians—their disregard for the great therapeutic law. We have seen dynamization ignored and the crude drug infusion given by the quart for days, weeks and, in one case, over three months. We have seen quinin given in twenty-grain doses and cupper and leecher called into use to aid the *homeopath* in the cure of disease. And what is strange, inconsistent and disgraceful, homeopaths justify their conduct by the assertion that, if they do not resort to strong medicines, they would lose their patients. The standing of homeopathy is becoming impaired. People say we have no faith in our system, and our prescriptions in the apothecary stores prove it."

Professor Temple, I sympathize with you, sir—upon my soul I do—but I have to admit that you are telling the melancholy truth.

Dr. Kirby of New York (Ibid., 1874, 302), a homeopath of fifty years' experience, says: "Is not much of the pretended practice of homeopathy random practice? How many of the faculties of our colleges are homeopathic? How many graduates practice homeopathy? I hear pretended practitioners of our school say to the sick, 'I give my patients what I think will do them good without regard to any school of medicine. I am no slave to any system.' Why, Mr. Editor, this is common talk. It is the rule."

To enliven your spirits a little, for you are looking mighty sour at me, permit me to offer in contrast with the foregoing tales of woe, a few extracts from Grauvogl's[1] "Practice" (1866), a work that was hailed with ecstatic peans by my excellent brethren of the new school. Dr. Eggert of Indianapolis says of it: "The work will—nay, must—become the bulwark of our school in the face of our enemies" Dr. Parsons of Iowa says: "Grauvogl has opened a masked battery and it will be difficult to come within range of his guns without being forced to surrender." Professor Gatchell, of anywhere, says: "They will be impressed with the singular ability with which he handles their leaders and smashes their idols." Professor Hering says: "At last we have a thinker." The "thinker" was not attending to business when writing about pulmonary tuberculosis, for, on page 275, he declares that "With the rarest exceptions it is produced by ossification of the cartilage of the first rib." That he was imbued with a proper appreciation of his capacity to smash things may be inferred from the remark on page 398, that "The hollowness of the physiologic school"—that's another name for us—"manifests itself as soon as its doctrines are analyzed, as has been done in this work." In every chapter of his book you will find the bombast that is so striking a feature of the "new-school doctor." On page 158, after describing a case of disease in detail, italicizing the prominent symptoms, he exclaims, "What now! What allopath would not be utterly hopeless in such a case and declare the patient lost beyond all doub[t]? The homeopathist does not give up any patient. The consciousness of his superior power holds him up; a power which rests upon the law of similarity; upon a rock whence flow thousands of healing springs." Of course, the patient got well. He had to, for Grauvogl was there himself. And the law of similarity was triumphantly exemplified in the administration of doses of half a grain of nitrate of silver and five grains of quinin.

In Part 2, on page 100, he says that nothing which looks like a medicine should be used; and on the next page he recommends tincture of opium in three or four drop doses; emetics and castor-oil to clean the alimentary canal; diuretics in dropsy; and *alkalies* in excessive *acidity* of the secretions. On page 214 he informs us that "the sole and simple question can only be what quantity of a substance, regardless of all subjective symptoms and incomprehensibilities" (what a very delicate way of referring to "provings" and "potencies"!) "is necessary to induce that chemic or physical counteraction which is equal in intensity and opposite in direction to that which is induced by the morbific cause in order to check the latter, or at least, delay it, and by repetition remove it." *Counteraction? Opposite* in direction? Well! What has become of "*similia*"? *Gee Whiz!* The man is smashing the wrong idols!

In Rau's "Organon," on page 140, the author comments as follows on the treatment of a case which he had just described: "The treatment is not homeopathic, but it is in accordance with the principle of *contraria contrariis*. I mention this by way of advice to those who condemn every kind of antipathic treatment without rhyme or reason." Referring further to the old doctrine of "contraries," he says: "These rules have been followed for three thousand years, sometimes with great success." The author also relates cases in which homeopathic treatment had failed, recommends castor-oil for the relief of constipation, tonics and stimulants for the relief of debility and exhaustion, and on page 177 says: "I confess that I never hesitate to avail myself of all the means at my command to relieve the patient."

Now, without presuming to question the integrity of anyone, I must nevertheless admit that I can not see how an honest man can do this and still claim to be a disciple of Hahnemann.

Hempel, in Vol. i, on page 801, says: "Of Hahnemann's original rules of practice hardly one is followed by modern practitioners."

In recent numbers of the *Medical Century*, various important diseases are discussed exhaustively by homeopathic gentlemen of the greatest distinction, among them Profs. J. S. Mitchell, R. N. Foster, C. E. Fisher, W. J. Hawkes, T. C. Duncan, and others, all of this city. In the treatment of diphtheria (Jan. 15, 1895), dozens of "indicated remedies" are recommended whose "provings" sustain no discoverable relation to one another, so far as I can see, nor to the symptoms of the disease—the most unique being *Lac Caninum*—dog's milk—whether potentized or not, is not stated—the suggestion of my friend. Professor Fisher. In the article on pneumonia, my friend, Professor Duncan, recommends in the treat-

[1] C. W. Earle in The Examiner, 1870.

ment of that disease aconite, veratrum viride, tartar emetic, ipecac, carbonate of ammonium, phosphorus, nux vomica and various other medicines, without saying a word about "potency," dose, "similars," or single medicines.

Dr. C. A. Weirick, writing (Sept. 15, 1895) on the management of typhoid fever, discourses on intestinal antisepsis, mentioning favorably in this connection, without reference to dose, naphthalin, thymol, salicylic acid, etc., touches upon the utility of the cold bath; and, in general, deals with the subject exactly as is done by "old-school doctors."

Prof. E. M. Hale, one of the most distinguished disciples of Hahnemann in this city, in a communication to the *Inter Ocean* (Jan. 9, 1889), criticising a lecture of mine which he had not heard and which had not been correctly reported to him, said: "He attempts to make his hearers believe that the homeopathic school uses the same methods as those taught by Hahnemann fifty years ago, when the fact is that, of the two thousand physicians belonging to that school in this and the old countries, not one in one hundred follows the methods of Hahnemann."

Now, think of that. "Not one in one hundred follows the methods of Hahnemann." And yet they are all homeopathists. I can not understand that. How is it possible for one to be a homeopathist who repudiates the teachings of Hahnemann? Didn't Hahnemann know what homeopathy was? Who was Hahnemann anyway? Where did he live—over there on Milwaukee Avenue?

(To be continued.)

Original Articles.

NOSTRUMS.*

BY H. C. WOOD, M.D.
PHILADELPHIA, PA.

Very properly, in strict accordance with its etymologic significance, old Dr. Johnson defined nostrum to be "a medicine not yet made public, but remaining in some single hand," but under the present heading I propose to widen out the inquiry of the hour into a more general examination and review of the use in the United States of medicines extrapharmacopeial in their relations, and more or less secret or proprietary in their origin.

Time was when the business of pharmacy partook of the nature of a profession, but more and more is the old apothecary shop becoming a mere distributing store, requiring little more scientific knowledge for its management than does the corner grocery. At one time 80 per cent. of the receipts of the druggist were from preparations made or prescriptions compounded in his own laboratory or shop. In 1890, Mr. M. N. Kline made an inquiry based upon the sales of the large wholesale druggists, and found that out of one hundred consecutive orders 58 per cent. were of patented and proprietary articles, 6 per cent. were pharmaceutic preparations, about 1 per cent. were packeted goods, the remainder apparently being crude drugs; or, taking the purchases for three months by five representative druggists, who bought their supplies from one store, 64 per cent. were patented and proprietary articles, about 1 per cent. packeted goods, leaving 35 per cent. as the proportion of legitimate pharmaceutic preparations and crude drugs. This would indicate that about 40 per cent. of the sales of the retailer are connected with legitimate pharmacy.

No one can have watched the progress of this matter without being convinced that the sale of extra-pharmacopeial remedies and nostrums is year by year steadily increasing. In order to get another view of the subject, I addressed the following questions to sundry druggists: What, judging from your experience, is the proportion between the sales in the average Philadelphia drug store of: 1, physicians' prescriptions; 2, drugs and their preparations, not proprietary nor patent; 3, proprietary or patent medicines?

The replies received have not been very numerous or very satisfactory, but they show that the percentage of patent and proprietary medicines sold varies greatly in different retail stores, and is large almost in proportion to the modern character of the store; there being still left in Philadelphia a few old-time apothecaries who have been able to bring down from the past a legitimate trade for prescriptions and drugs, in which the proprietary medicines form but a small part. According to the answers I received, in the modern drug store the proprietary articles appear to constitute from 50 to 60 per cent. of the sales.

The magnitude of the change is further shown in the fact that twenty years ago there were in the city of Philadelphia about thirty wholesale drug stores; to-day, I am informed there are but six, not including those who sell medicines not to the drug trade, but to country stores. More than this, according to a member of a successful firm, most of these wholesale drug stores are kept alive by their own specialties, a purely distributing house being almost unknown; and three-fourths of the business is further said to be the selling, not of standard drugs, but of proprietary articles.

If the business changes which we have noted consisted simply of the lessened sale of drugs, and showed that the world was taking less medicine than twenty years ago, there might be reason for congratulation and hope of progress, but the changes which have taken place would seem to be not a diminished output of medicine, but the substitution for the true and known of the untrue and unknown. Surely there is more hope for a nation that takes quinin than for one that lives on vermin killer or health pills.

It is generally believed that the proprietary and patent medicine business is one which invariably yields great receipts; careful inquiry, however, seems to show that this is a mistake, that it is a speculative rather than a legitimate business, one which does not yield a larger percentage for the investment than do the ordinary occupations of life, but which, like a huge lottery, gives great but barren promises to the many, and to the few money prizes which dazzle the eyes of the multitude. Careful inquiry among those who are thoroughly familiar with the patent-medicine business shows that in this country, within the last twenty years, not more than fifty persons have succeeded in making fortunes out of it; rarely have these fortunes exceeded $100,000, and in not more than half a dozen cases have they reached a million dollars. The profits of the business are enormous; the amount of business which has been done gigantic; where then have the profits gone? Into the newspapers and magazines, lay and medical! Thousands of persons have been ruined by advertising beyond their means, and not having sufficient capital to meet

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the obligations they had incurred, have passed into bankruptcy.

Almost every drug store in America has its own so-called "specialties," which are of the nature of proprietary medicines; but leaving these out of sight, there are about three hundred firms or companies who do business on a large enough scale to be called "proprietors." Of these three hundred, we are informed by competent authority, fifty spend $20,000 to $100,000 a year in advertising, twenty from $300,000 to $500,000 a year, the balance from $10,000 to $20,000 a year; making in all, as closely as can be determined, between fourteen to fifteen millions yearly spent in the advertising of nostrums. This stream of gold passes into the exchequers of the newspapers, the magazines and the advertising agents; cause it to cease, and a considerable proportion of the newspapers and of the medical journals of the United States would cease to live; a consummation most devoutly to be prayed for. If there were only a half dozen medical journals published in the United States, if every doctor who wrote an article that had not novelty or other valuable quality in it should be beheaded within a fortnight, what a blessed world would it be to live in, but how soon would the profession be depleted!

It is a matter of great interest to know what proportion of the nostrums swallowed by the public are purveyed through the medical profession. It is probably impossible to get accurate statistics, but a gentleman who is connected with one of the largest distributing houses in the United States, and who has paid especial attention to this subject, estimates for me that about 10 per cent. of the whole patent medicine and proprietary trade is carried on through the physicians. This estimate seems to me under rather than over the truth.

We, as members of the medical profession, and especially those of us connected with the medical press, are accustomed to inveigh against newspapers, secular and religious, for accepting the advertisements of patent and proprietary medicines, whereas in truth, unless the pot be warranted in calling the kettle black, we ought to keep silence with shamefacedness.

All dealers in medicines of the class under consideration with whom I have come in contact are concordant in asserting that the most successful proprietary remedies of the day are those which are chiefly or often solely distributed through the physicians; and in my own consulting practice I have been astounded to so often find men of good repute and standing using drugs of whose nature they have no knowledge; there certainly has been of late years a rapid growth among physicians of the habit of prescribing proprietary medicines.

The ease of prescription, and the readiness of administration of the modern tablet is undoubtedly doing much in increasing the use of nostrums. If the user of the tablet could by its use simplify his practice, it would be well. If he would have tablets of strychnin, tablets of cocain, tablets of digitalis and tablets of nitroglycerin, he might escape from polypharmacy and really become more scientific and successful in obtaining results; but in the majority of cases the tablet links itself with polypharmacy. The cardiac stimulant tablet will contain nitroglycerin, whose action is over in twenty-five minutes, and digitalis, whose influence can not be felt under five or six or more hours; or as in instances which we have known, he will have the nitroglycerin combined with iodids, bromids, and half a dozen other remedies having no relation one with the other, and perchance antagonistic. Then again, prescriptions in which not even uniformity of size is maintained—shotgun prescriptions, in which BB is mixed with number 8, and even mustard seed—prescriptions invented on the principle of the sea captain, who gave to the sick sailor a little of everything in the sea-chest, saying, with an oath, that if the man died it was not his fault, as he had given to him (the sailor) a little of everything he had. From this to the abyss of nostrumism is a steep and slippery path; *facilis descensus Averni.*

Not only, however, do members of the profession stultify themselves by prescribing nostrums, but even more depressing is the fact that, never mind how worthless a remedy may be, the proprietor can almost invariably secure public recognition of excellence from men eminent in the profession. One class of drugs may be mentioned simply as an example. Except formalin solutions there is no disinfecting mixture sold which, in proportion to the price, is comparable in power to the simplest disinfectants recognized by the pharmacopeia, and yet the markets of the United States are loaded down with proprietary disinfection solutions, most of them absolute frauds, many of them certified to by leading members of the profession. These certificates have not been paid for, but have been free gifts from the members of the profession to the various firms. The profession is not corrupt, it is disgustingly weak—feeble as the molasses and vinegar drink of our childhood. Many of these certificates have an enormous pecuniary value; they have been given simply because some smooth-tongued commercial traveler has asked for them. The doctor has received no equivalent for that which he has given, but none the less has he in the giving stultified himself, degraded his profession, and assisted in the swindling of the public. Of those who have given certificates for disinfecting solutions, how many have ever made any bacterial experiments upon the solutions in question. Probably not one has ever carried such a trial to a careful comparison of the proprietary solution with that of an ordinary disinfectant, or considered the question of relative price. Moreover, the doctor who gives a certificate based upon a thorough trial has no guarantee or reason for believing that the solution furnished one year after date, with his certificate attached, will be the same as that which he used in his experiment. So far as I can remember, personally I never gave but one certificate concerning a drug or a commercial article, and so far as I know no greater scoundrel ever misused a certificate than did the one to whom I gave this lonely representative of personal weakness. It ought to be a first principle in ethics that no doctor should be allowed to give a certificate, a commendatory letter, or anything else recommendatory, to any proprietor of anything under the sun. It is a great pity that the medical profession has not such a public sentiment as to make the giver of a certificate feel that he risks ostracism by the giving. Esau, the Hairy One, was a pattern of shrewd foresight contrasted with many an American doctor; he did get one comforting mess of pottage for his birthright; the American doctor hears only some words of honeyed flattery in the secrecy of his office, but is deaf to the derision in the outer world of those who have been "chestnutting" with him.

One undoubted cause of the increase in the use of proprietary and patented medicines by the profession is the production of patented drugs which are of such peculiar therapeutic value that, whether he will or not, the doctor must use them. The difficulty of the situation is, however, more apparent than real. All the physician has to do is to make it a governing principle that the only patented or proprietary drugs he will use shall be simple organic principles.

The golden rule of living should be: give no certificates; use no proprietary combinations of medicines. When we have done this then with polished weapons can we make war upon those who batten on the misfortunes of mankind.

Having reached this principle for our own government, we are in a position to consider for a few moments the subject of the general governmental control of proprietary medicine; a subject which is at the present made more vital by the fact that the laws of the United States regarding it are now under consideration by the Federal authorities, for the purpose of reorganization. The importance of the subject can hardly be estimated; hungry is the Anglo-Saxon throat for medicine; never to be stopped is the clamor of overcredulous, suffering humanity.

According to the *Drugman*, while thirty years ago the annual yearly revenue in Great Britain from taxes on patent medicines was $210,000, in 1892 it was $100,500,000, and the tide is still rising. I have no American statistics to offer you, but certainly the average Yankee is not in his hunger after pills and draughts much behind his transatlantic cousin. The success of the various proprietary remedies rests in the greater part upon a very curious fact, namely, that the embalmment of a lie in printer's ink makes it to the ordinary Anglo-Saxon mind as genuine and as indestructible as an Egyptian mummy; and this trait of character belongs as much to the American as to the Englishman.

Whether it be possible by law to control in this country the enormous volume of the patent-medicine trade is very uncertain; in France, before a proprietary medicine can be put upon sale the formula and the process of its production must have been submitted to a committee of the Academy of Medicine, which committee can alone give permission for its sale, and has the power of fixing the highest price at which it can be sold. Certainly the American proprietors, in the ardency of their zeal for the salvation of their fellow-men by drugs, would not be willing to be hampered by such bounds as these. It is possible that a law recognizing the registration of medicinal formulas, and perchance even one making it a requisite that the formula of the patented medicine shall be printed upon the package in which the medicine is sold, might be enforced to some extent if once enacted; but at present the enactment of such a law seems even more improbable than its enforcement.

After all, there is no reason why the medical practitioner, as a medical practitioner, should be especially interested in this matter. As already urged, proprietary formula compounds, protected in any way by law, are or ought to be an abomination to the professional mind; but at this time to attack their use by the people would be quixotic. The traffic in lies will never cease. The gullibility of the human nature is unfathomable, and if we as a profession would only keep our own garments from being defiled, we could well afford to take no heed of the doings of the public, or the wolves that prey upon them. When the sheep wish to be devoured the wolf is scarcely to be blamed. On the other hand, the profession is and must remain vitally interested in all legal questions centering around distinct organic principles.

The question whether patents should ever be taken out by members of the professions has been so much discussed that every one must at least acknowledge that there are to this, as to other problems, two sides, but at present we are not immediately concerned with this subject, since the inventors or discoverers of new principles are chemists rather than practitioners of medicine. The reasons that justify the existence of patent laws at all apply to the work of these men as strongly as they do to the work of mechanics. Viewing the matter as the lawgiver must view it, the chemists are certainly entitled to the protection of their labor; but what shall the protection be?

The intent of the patent laws is that the discoverer shall be encouraged by the temporary right to his discovery, but that such right shall eventually lapse, so that the invention shall become the property of the whole people. The application of this principle throws out at once the patenting of the names of drugs, since the name which usage has given to a remedy will, for the mass of the people and even of the profession, adhere permanently to the product. Antipyrin, for example, will be known in commerce as antipyrin to the end of the chapter. Life is too short, and brain matter too precious, to consume either in saying phenyl-dimethyl-iso-pyrazolone. I have never heard of an American physician using the name adopted by the British pharmacopeia, "phenazone;" and I can not remember having seen this name printed even in an English medical article. Now, if copyrights could be made to attach to the name antipyrin, the patent for antipyrin would for practical purposes be thereby indefinitely extended.

No one has recognized more clearly than have our pharmaceutic manufacturers the force of considerations such as those just given, and the effort has been both persistent and widespread to obtain permanent proprietorship of a remedy by making its popular name a trade-mark, and in this way to destroy the intent of the patent law by obtaining through the laws governing trade-marks an exclusive right which has no ending.

A trade-mark is, however, the sign of the brand and not of the article. Originally it was a design; a lion rampant stood for a lion brand of starch, sugar, or what not; and the design, which was the sign of the product of the firm's factory or series of factories, was naturally the property of its inventor. Now it is claimed that a name may be made a trade-mark and registered as such. This claim, however, probably can not be sustained even under the present law. In the decision rendered by the United States supreme court in the case of the Columbia Mill Company of Minnesota vs. W. W. Alcorn & Co. of Pennsylvania, the presiding judge said: "That to acquire the right to the exclusive use of a name, device or symbol as a trade-mark, it must appear that it was adopted for the purpose of identifying the origin or ownership of articles to which it is attached, or that such trade-mark must point distinctly, either by itself or by association, to the origin, manufacture or ownership of the article on which it is stamped. It must be designed, as its primary object and purpose, to indicate the owner or producer of the commodity and to distinguish it from like articles manufactured

by others." In another case it was affirmed by the justices of the supreme court that: "The office of the trade-mark is to point out distinctly the origin of ownership of the article to which it is affixed; or, in other words, to give notice as to who was the producer."

These decisions would appear to the lay mind to be sufficiently distinct and authoritative, but decisions of the supreme court can, I suppose, be countermanded, so to speak, by subsequent decisions of the same tribunal; and certainly the law should be made so clear and positive in its statements that no manufacturer would think of attempting evasion.

The question as to what the patent law should be in regard to medicinal principles invented or discovered is not easy to answer. Should there be product patents or should there be process patents? In other words, should the substance antipyrin (product) have been patented as a product, or should only the process by which the original discoverer produced antipyrin be capable of being patented? It is evident that the difference between process and product patents is not only clear but of vital importance to the inventor or discoverer. Supposing that an organic principle, of practical value in medicine, has been discovered and produced by a certain process; if the discoverer patents the drug he secures proprietary rights in its sale for the whole term of years provided for by the patent law. If, however, he can only patent the process of production, he acquires proprietary right only until the time when some other chemist invents a new process which may be better or worse than the old, but which enables the second chemist to compete with the originator, so to speak, who therefore practically loses the value of his patent. This time may be three weeks, it may be three years, it may be the whole term of the patent.

The American Pharmaceutical Association has, I believe, expressed itself as being in favor of granting process patents only. The American Pharmaceutical Association is a most respectable, indeed a highly honorable, body, but it is to the interest of its members that the patent rights of chemic investigators shall be as loosely held as may be, and therefore it is possible that the minds of its members are unconsciously biased. I can not myself see why the man who practically invents a new principle such as antipyrin should not have the same inalienable right to the result of his labors as had he who first placed the eye in the front of the sewing needle. It is probable that the law ought to recognize in its protection two classes of new remedies. No vegetable or mineral substance which exists pre-formed in nature, ready for the use of man, should be capable of being patented. It can in no sense be called an invention; the discovery of its medicinal value is almost always largely the result of chance, not of foresight. A process for the extracting from a drug of its active principle might, however, be patented, so that process patents might be allowed for medicines of this class. On the other hand, when by synthetic methods a substance which is not found freely existing in nature has been made by a chemist, such substance may well be said to be an invention of the chemist, and to be therefore capable of patenting.

In Germany there are no product patents allowed, only process patents; but in Germany it is the habit of the courts to be very liberal in the interpretation of patent rights, throwing the whole burden of proof upon the inventor of the second or new process, and requiring his process to be absolutely diverse from the first; whereas in the United States the courts narrow as far as possible the rights of the patentee, so that the new or second process may survive judicial decisions, although it was really founded upon the first process which had received the patent. This, at least, is the allegation of the chemic manufacturing houses of the country; exactly how correct it is only a long-time worshipper at the shrine of patent courts could say.

Finally, colleagues of the medical profession, the time allotted me by your patience has expired, and I must leave the subject of my paper, though it be scarcely more than touched upon. To me this seems for us the final sum of the whole matter: so long as there be trout to rise, so long will there be fishermen to make their deadly casts. The credulous, the ignorant, the men and women who want to be deceived, the despairing, who grasp at every floating straw, will exist until the coming of the millenium demonstrates that through the succession of ages the suffering of innumerable human units has perfected human nature; but as members of the medical profession, let us see to it that we in no way aid those who, serving the father of all liars, wax rich and wanton on the miseries of their fellows.

1925 Chestnut Street.

SARCOMA OF THE THYROID GLAND.*

BY PAUL F. MORF, M.D.

CHICAGO.

Although the occurrence of enlargements of the thyroid body was known for a long time, it was not until within a comparatively recent period that the discovery of malignant tumors having their origin in this gland was made. In 1817 Alibert (quoted by Bircher) reported a case of true sarcoma of the thyroid body. Raynaud, in 1838, under the title "Thyroscarcomie," gives a report of an encephaloid sarcoma with metastatic foci in the lungs and liver, but he unfortunately gives no description of the microscopic findings. Förster, in 1860, gave an accurate and careful description of one of this class of neoplasms. Virchow mentions the malignant tumors of the thyroid, but gives no data as to their occurrence, and no description of the tumors themselves. He also makes the statement that he saw one sarcoma of the thyroid gland.

The credit of being the first to materially advance our knowledge of the clinical and pathologic manifestations of the struma maligna, and place it on a substantial anatomic basis, belongs to Kaufmann, who, in 1879, very minutely described a series of cases of malignant thyroidal tumors. He collected in all seven cases of sarcoma of the thyroid, three of these having been observed and examined by himself. Since the appearance of Kaufmann's article in 1879, a number of cases have been reported, the majority from the Continent, a few from England, and several in this country. By sifting the literature on the subject of thyroidal tumors to which I had access, rejecting such cases as might leave any doubt as to the exact nature of the neoplasm, I have been able to collect more or less complete descriptions of thirty-nine sarcomata of the thyroid gland. To these thirty-nine

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cases I add one more, which I had opportunity to observe while acting as interne in the Cook County Hospital, Chicago. I also add the microscopic description of the tumor of Case 39. The history and clinical findings of this case were reported by Dr. Graham of this city, to whom I am indebted for the material. In his report no details were given in reference to the minute structure of the tumor, mention being only made that the tumor was a round-celled sarcoma. The history of the former of these two cases is as follows:

W. B., American, aged 47, was admitted to the Cook County Hospital, Chicago, Dec. 20, 1897. About one year before admission, he noticed a small swelling in the right side of the neck, near the sternal origin of the right sternomastoid muscle. The swelling slowly increased in size up to about the middle of November, 1897, since when it has grown rapidly; voice unchanged, no dysphagia, occasionally has dyspnea; has lost eight to ten pounds in weight during the last two or three months; appetite good; digestive and urinary systems normal. Previous history: Eighteen years ago patient received an injury in a railroad accident, both clavicles, the left scapula and three ribs being broken; has had gonorrhea twice, but no other diseases; father and mother living and healthy; no one in family had goiter or malignant growth of any kind.

Examination at time of admission showed the following: Patient is well nourished, adipose tissue abundant, no anemia or cachexia; chest, abdomen and extremities negative. On the right side of the neck, occupying a position corresponding to the location of the right lobe of the thyroid gland, is a tumor about as large as a goose egg, firm in consistency, no fluctuation; no adhesions to the surrounding structures, or to the overlying skin, which is normal in appearance. On aspiration with an exploring syringe a small amount of blood is obtained. The cervical lymphatic glands are not enlarged, nor involved in the growth. The right sternomastoid muscle and the large vessels on the right side of the neck are displaced to the right and backward. The left lobe of the thyroid gland shows no enlargement.

On Dec. 22, 1897, under general anesthesia, the tumor was removed by Drs. Moorehead and Brown. The patient made a rapid recovery, leaving the hospital on Dec. 31, 1897.

The tumor removed is about the size and shape of a goose-egg (9x7x6 cm.), firm in consistency, and shows no areas of softening. It is surrounded by a firm connective tissue capsule, which is not perforated or broken through at any point. On section the cut surface is slightly moist and glistening, having a dark red color in some places; elsewhere it is grayish and yellowish in color.

Sections taken from the part where the tumor tissue bordered on the glandular tissue, hardened in formalin and alcohol, stained with hematoxylon and eosin and mounted in Canada balsam, present an interesting picture.

The tumor tissue proper is made up of round cells of intermediate size, and of spindle cells. They are closely packed together and almost no intercellular substance can be made out. The protoplasm of the tumor cells is very scant in many places. The nuclei are large, some oval, some round and others more or less crescentic in shape. The majority take the stain very well, showing a deep blue color; in many, one distinct nucleolus, in many others, two nucleoli can be seen. Some have a deeply stained nuclear wall, while the interior of the nucleus itself is more or less homogenous in appearance, showing no chromatin threads or granules, and staining less intensely than the limiting membrane. In other nuclei the chromatin granules and threads are distinct and scattered irregularly through the nucleus. Some mitotic figures can be found; indeed, they are not rare. In some instances the nuclei show the chromosomes arranged into groups of three, indicating an atypic division of the nucleus. The blood-vessels, or more properly the blood-spaces, are fairly numerous. Their walls are formed by the tumor cells, the protoplasm of which stands out sharply against the lumen of the space and is somewhat flattened and drawn out.

Where the tumor tissue borders on the preformed thyroidal tissue, the alveoli of the gland have been changed by compression from their normal round or ovoidal shape, to an irregularly quadrilateral or rhomboidal shape (on section), or appear as spindle-shaped slits. The normal epithelial lining has almost entirely disappeared, as well as a large part of the colloid material, which in the normal gland, or in the colloid goiter, fills the vesicles. The vesicles are either empty, or what is much more common, more or less completely filled by extravasated blood-cells. These for the most part are well preserved, the reds showing, in many cases, only the alteration in shape resulting from mutual compression. Some few with disintegrated and pigment granules, having a golden brown color, are found both free and enclosed in cells.

Where the tumor merges into the altered gland tissue just described, the tumor cells are less closely packed together, gradually becoming more and more scattered and separated by the gland tissue. At the outermost margin of the tumor, sarcoma cells are found lying here and there; 1, in the connective-tissue walls of the altered vesicles; 2, an isolated cell here and there, lying among the extravasated intra-alveolar red blood-corpuscles; 3, an occasional deeply stained round or spindle-shaped sarcoma cell may be seen lying separate from the neighboring part of the tumor and surrounded by the small amount of colloid material which still remains. Among the tumor cells, small hemorrhagic foci are occasionally seen.

Diagnosis: Primary mixed-celled sarcoma of the thyroid gland.

On April 19, 1898, the patient returned to the hospital. There had been a recurrence of the growth, and he also complains of dysphagia and dyspnea, stating that three weeks ago he received an injury at the inner end of the right clavicle and soon after a small lump appeared there, which has rapidly increased in size. At this time there was found a uniform enlargement at the front of the neck, having a more or less hemispheric shape, the convexity anteriorly, extending from the level of the hyoid bone above to the upper extremity of the sternum below. At the right sternoclavicular articulation there was a tumor, about the size of a walnut, or a little larger, soft and fluctuating, the overlying skin having a deep reddish-blue color and appearing about to rupture. On this account this nodule was removed under local anesthesia. The central mass of this nodule had become softened and consisted of a semifluid mass. The cortical portion was firmer and of a grayish-red color. Very thin sections were hardened in formalin solution immediately after removal of the nodule. Microscopically, the sections showed the presence of numerous round cells of medium size and a few spindle cells. Many mitotic figures were found, sometimes as many as three or four dividing nuclei in a field ($^1/_{12}$ oil-im. ocular iv, Reichert) corresponding with the very rapid growth of the nodule.

Healing of the wound made for removal of this nodule occurred *per primam*, patient leaving hospital again on April 30, 1898. Five days later he was again readmitted. He complained of increased dyspnea, which brought on the exitus four days later.

At the autopsy, April 14, 1898, examination of body, made by myself, gave the following findings: The body is that of a well nourished man, short and heavy set; rigor mortis well marked; lividity in dependent parts; linear scar in the middle of the neck anteriorly about 12 cm. long; a second scar about 8 cm. long over the inner end of right clavicle; general nutrition good, fatty layer moderately thick; no anemia or cachexia.

The pericardial sac contained about 60 c.c. of a slightly blood stained fluid; the pericardium is smooth and glossy; there were a few old adhesions over the anterior and posterior surfaces of the right ventricle; left ventricle contained a small amount of dark fluid blood, the right ventricle a small white non-adherent blood-clot. The mitral orifice admitted four finger tips; there were a few yellowish plaques at the base of the anterior mitral cusp; aortic semilunar valves were normal; tricuspid orifice admitted five finger tips, loosely; the valve itself was normal; myocardium is of a brownish red color, with here and there small pale yellowish spots; near the beginning of the aorta were numerous small rounded or irregularly shaped, slightly elevated yellowish spots 2 to 3 mm. in diameter.

The pleural cavities were empty; the pleurae smooth and glossy, with a few old adhesions over the right upper lobe. The lungs were dark red in color, floated and crepitated. Near the anterior margins there were small areas of grayish distended air-vesicles; and in the lower part of the left upper lobe was a tumor about the size of an orange, moderately firm in consistence, and on section a dark grayish-red color. A similar tumor having about the same size was found in the lower portion of the right middle lobe, and a third in the lower part of the left lower lobe. In the lower portion of the right lower lobe was a fourth mass about the size of a walnut. These tumors had grown from the lobes in which they were originally situated, and passed across the adjacent interlobar fissure, and into the adjoining lobe; numerous smaller nodules about the size of a pea or hazelnut were scattered through both lungs.

The peritoneum was smooth and glossy, its cavity empty.

The spleen weighed 350 grams; peritoneal surface was nor-

mal, but the organ cut with slightly increased resistance. On section, hemorrhagic foci about the size of a pinhead were found.

The liver weighed 2300 grams; surface was smooth, superficial veins congested and cut with normal resistance. On the cut surface the lobular markings were indistinct; in places the periphery of some of the lobules was distinctly yellow. The gall bladder contained a small amount of dark greenish bile, passages patent.

The kidneys together weighed 450 grams; surface was smooth and even; the stellate veins were somewhat injected. On the convex margin of the right kidney was a small cyst the size of a pea, containing a clear fluid; on section, cortical markings were indistinct; cortex to medulla as 1 to 4; capsule stripped readily, leaving a smooth surface.

The pancreas, stomach, intestines and bladder showed no essential changes. The mesenteric glands were not enlarged.

The scalp, skull, dura mater and brain showed no essential change. Tongue and pharynx were normal. There was calcification of the cricoid cartilage.

On the anterior surface of the neck was an enormous tumor mass, irregularly hemispheric in shape, limited above by the hyoid bone extending downward over the sternum to the point of junction of the first and second pieces of the sternum. The lateral boundaries corresponded to a line drawn from the angle of the inferior maxilla to the middle of the clavicle on each side. The skin over the tumor was normal in appearance, except near the median line, where it was somewhat thinned and adherent to the underlying tumor—site of scar of first operation. Dissecting back the skin showed the two sternomastoid and also the two sternohyoid and sternothyroid muscles pressed away from the median line, their fibers pressed apart, and the muscles themselves thin and atrophic. The carotid arteries and the internal jugular vein on each side were displaced outward and backward, were adherent to the tumor mass, but their lumen was patent throughout, and their walls had not been perforated at any part by the new growth.

The trachea was compressed from in front and the right, diagonally toward the left and behind, giving the cartilages a more or less oval contour; the lumen of the trachea was not completely occluded at any point. The compression extended downward from a point 1 cm. below the cricoid cartilage, a distance of 5 cm. The trachea contained some bloody mucus.

The esophagus was almost surrounded, near its upper extremity, by a process of the tumor, somewhat cylindric in shape about 4 to 5 cm. long and about 3 cm. in diameter, which passed between the posterior wall of the pharynx, esophagus and the spinal column on a level with the cricoid cartilage.

The main tumor mass was about the size of a child's head, somewhat elastic in consistency throughout the greater part.

In the lower right quadrant, and near the upper left quadrant there were two areas of fluctuation. Section through these fluctuating areas showed in each case a cavity about 5 cm. in diameter, containing a semifluid dark-red mass, the wall of each cavity consisting of tumor tissue.

Elsewhere on section, the cut surface presented a dark-red blood stained appearance, mottled with small yellow points.

Anatomic diagnosis: 1. Recurrent sarcoma of the thyroid gland with metastases in the lungs. 2. Old pleuritis. 3. Emphysema of lungs. 4. Beginning atheroma of aorta. 5. Fatty infiltration of the liver.

Description of microscopic findings of tumor in Case 39: The tumor is composed chiefly of round cells of medium size, their diameter being about equal to twice that of a red blood-corpuscle. There are, in addition, a few small spindle shaped cells. The protoplasm is present in relatively small amount and is homogeneous in appearance. The nuclei are distinct, well stained, and for the most part circular in outline; some few have an oval shape. They have a distinct wall, which stands out prominently against the more lightly stained background of protoplasm. The chromatin is more or less irregularly scattered throughout the nuclei; here and there a nucleus containing two nucleoli, or a cell with a mitotic figure is seen.

Between the cells a small amount of slightly fibrous intercellular substance can be made out. The blood-vessels and blood-spaces are moderately abundant; their walls are formed by long spindle-shaped tumor cells. In some parts of the tumor, small areas are found where there has been a disintegration of the embryonic cells, leaving a granular mass in which no organic elements may be distinguished. Where the tumor tissue merges into the tissue of the thyroid, there can be seen large spaces filled with disintegrating blood-cells. Some alveoli retain their epithelial lining, but instead of cubic cells are found flattened cells; in other alveoli the alveolar epithelial lining has entirely disappeared, the vesicle, however, containing a small amount of colloid material and an occasional tumor-cell.

Regarding the occurrence of sarcoma in the thyroid gland, the following statements may be made: 1. It is a rare disease. 2. It is more common in those countries where goiter is an endemic disease than in those countries where sporadic cases are the rule. 3. It is more common in persons whose thyroid is the seat of ordinary goiter. 4. It is more frequent in the male than in the female. 5. It occurs oftener in late than in early life.

That it is a rare form of disease hardly needs to be demonstrated. The small number of cases reported points this out as an undoubted fact, there being forty cases in as many years. However, it is perhaps not as rare as would appear from this, for, naturally, not all cases are reported, some which are reported are not accessible, and others not available, because of incomplete or unreliable descriptions. Among 7461 autopsies at the Berne Pathological Institute (Limacher) "struma sarcomatosa" was found forty-four times. In studying the frequency of occurrence of sarcoma of the thyroid, we naturally compare with it the frequency of occurrence of carcinoma of the same gland. While collecting the cases from the literature I was impressed by the relatively large number of reports of cases of cancerous goiter. Ewald, in Nothnagel's "Spec. Path. u. Therap.," gives the relative frequency of carcinoma to sarcoma of the thyroid as 3 or 4 is to 1. Kaufmann, in his original paper, reported seven cases of sarcoma and twenty-three of carcinoma of this gland. In considering the subject of the frequency of the occurrence of sarcomata of the thyroid, we include only those cases in which the growth was primary in this gland. Regarding the frequency of secondary sarcomata of the thyroid, the figures of Mueller (quoted by Lücke and Zahn) are in point. Among 102 cases of sarcoma occurring in various parts of the body, 3.1 per cent. produced metastases in the thyroid gland and pancreas. From this it is evident that secondary sarcoma of the thyroid must also be considered infrequent. Of interest in this connection is a communication by Pinner, who reports a case in which a primary sarcoma of the pancreas had given rise to a secondary growth of the same nature in the thyroid gland.

That sarcoma of the thyroid is more common in goiter countries than elsewhere, appears to be the case from the following: The largest number of cases have been reported from goiter countries. The figures of Limacher here are also in point, as Berne is one of the acknowledged foci of the ordinary goiter, and while there are no figures on this point that I know of, taken from post-mortems made in this country, still I think it will be generally admitted that no pathologist has found as large a number of sarcomata in this country, where the ordinary goiter occurs sporadically, in an equal number of post-mortem examinations. Just as occasional cases of benign goiter are found in this country, so also scattered cases of the sarcomatous degeneration of the gland are reported in the medical literature of this country. Unfortunately, several of these cases are so incompletely described that they could not be included in the table with the other cases.

The third assertion seems borne out by the following: Of the appended forty cases, twenty-two gave a history of previous goiter. If we remember how easily a small enlargement of the thyroid is overlooked

TABULAR ANALYSIS OF FORTY CASES OF SARCOMA OF THE THYROID GLAND.

No.	Reported by	Sex and age.	Previous goiter.	Origin.	Microscopic variety.	Cervical glands.	Metastases.	Points of special interest.
1	Förster	F. 60.		Right lobe.	Spindle & stellate cell; bony tissue.	No enl'rgement.		Adhesions to larynx firm; perforation of trachea.
2	Scheiber	M. 40.	Tumor of neck years before.	Right side.	Alveolar sarcoma: stellate cells.	Involved.	In cranial bones.	Trachea compressed; common carotid, internal jugular and vagus involved in growth.
3	Dolèris	M. 55.	Tumor of neck 14 yrs. before.	Left lobe.	Fibrosarcoma.	Involved.		
4	Kaufmann	M. 66.	Present for a long time previously.		Spindle-celled sarcoma.	Involved.	In pleura.	Left jugular, innominate and thyroid vein filled by thrombus; thrombus reaches to opening of innominate into cava.
5	Ibid	F. 53.	Since youth.		Spindle-celled sarcoma.		Anterior mediastinum, both lungs and liver.	
6	Ibid	F. 46.	Three years before.	Left lobe(?)	Struma cystosarcomata.			
7	Ibid	M. 56.	Long time previously.	Left side.	Sm'll round-celled sarcoma.		Mediastinal lymphatic glands.	
8	Ibid	F. 61.	No previous goiter.	Left lobe.	Round-celled sarcoma.		No metastases.	Compression of esophagus.
9	Ibid	M. 53.			Spindle-celled sarcoma.		In bones, muscles, skin.	
10	Ibid	F. 57.	No previous goiter.	Right lobe.	Round and spindle cells.		No metastases.	Duration approximately five months.
11	Neumann	F. 54	Present for 5 years.		Alveolar sarcoma contain'g colloid masses.		Met. alveolar sarcoma in humerus.	
12	Braun	F. 59.	For 20 years previously.	Left lobe.	Lymphosarcoma.	Right side; mod'r'tely enlarged.		Duration of disease about four months; compression of larynx and trachea.
13	Heath	F. 55.		Mainly on the right side	Spindle and round cells and intermediary forms.		In pleura and lung	Duration about six months; whole larynx displaced; perforation of larynx and trachea below vocal cord by tumor; platysma, sternomastoid, omohyoid and thyroid stretched over growth, thinned and atrophied.
14	Tilleaux	M. 33.	None		Fibrosarcoma.	Not enlarged.		Patient presented clinical symptoms and signs of Basedow's disease.
15	Mathieu	F. 69.	None		Round-celled sarcoma.	Involved.		Encephaloid degeneration; trachea surrounded, but not compressed; complete obliteration of middle portion of jugular; right pneumogastric enters the mass and its fibers separated by tumor cells.
16	Bircher	M. 50.	None		Round-celled sarcoma.	Enlarged.	In lungs.	Adhesions to trachea; duration of disease about six months; cause of death, edema of glottis.
17	Schumziger	M. 49.	Tumor of neck many years.	R. side neck.	Ro'nd and spindle-celled sarcoma.			Foci of softening cavity formation and calcification; trachea surrounded on three sides; perforated r. side.
18	Braun	M. 59.	Goiter since early youth.	Right lobe.	Round and spindle-celled sarcoma.	Hard and infiltrated	L. vent., 5th costal cart., perichond., pleura, left lung and liver.	Larynx and trachea pressed to the left side; larynx compressed and its cartilage softened.
19	Ibid	F. 46.	Tumor of neck since age of 17.		Cavernous sarcoma.	Enlarged.	In lungs.	Perforation of trachea by tumor; extensive thrombosis of cervical vessels.
20	Ibid	F. 44.	Goiter present for ten years previously.		Spindle-celled sarcoma.	Not enlarged.		Adhesions to trachea and esophagus; operation, suppuration, followed by erosion of blood-vessel by the suppurative process, causing fatal hemorrhage.
21	Ibid	M. 58.	Tumor of neck 24 years.	Right side.	Vascular round-celled sarcoma.	Enlarged; some hard, some soft.	R. lung and in 7th cervical vertebra.	Thrombosis of small veins, coming from the tumor, with tumor tissue.
22	Wölfer	M. 38.	Tumor of neck for 18 years.	Right side.	Fibrosarcoma.	Involved.		Trachea compressed; large blood-vessels of neck (right side) imbedded in tumor mass and pressed outward; duration about ten weeks.
23	Ibid	M. 51.	Tumor of neck 19 years.	Right side.	Angio-cavernous sarcoma.	Infiltrated.	Lungs, medi'stin'l lymph gland and in left ileum.	Larynx and trachea dislocated toward left; thrombosis of veins of neck; cause of death, pulmonary edema.
24	Ibid	M. 63.	None	Right side.	Round-celled sarcoma.			Trachea dislocated toward right; duration about four months.
25	Ibid	F. 51.		Left side.	Giant, round and spindle cells.		In dura mater.	Trachea pressed toward right; cricothyroid membrane perforated by tumor; L. sternomastoid muscle infiltrated; jugular vein perforated, thrombosed, thrombus extending upward into sigmoid sinus, downward into r. auricle; thrombus consists of tumor tissue.
26	Ibid	F. 35.			Alveolar angiosarcoma.			
27	Kobler	M. 62.	None	Right side.	Spindle-celled sarcoma.	Enlarged; cheesy degenerat'n.	Liver, upper part of ileum and in right kidney.	Trachea adherent just below larynx; esophagus compressed, tumor tissue replacing its muscular coat; multiple hemorrhages in brain.
28	Pitt	M. 65.	No history of previous goiter.	Left side.	Round-celled sarcoma.	Adjacent glands involved.		Growth extends into left jugular, where a clot mixed with growth was adherent; "r. side of heart contained extensive ante- and post-mortem clot, extending into pulmonary artery and showing localized patches of white growth, doubtless carried from internal jugular vein"; duration of disease about four weeks.
29	Shattuck	M. 42.		Right lobe.	Spindle-celled sarcoma.			Invasion of esophagus and sheath of carotid by tumor.
30	Turner	F. 66.	None		Round-celled sarcoma.	Not infiltrated.		Right sternomastoid muscle infiltrated by tumor; infiltration of adjacent fatty tissues; tumor and skin adherent to one another; duration about nine months.
31	Bryant	M. 56.	None		Round-celled sarcoma.			
32	Pick	F. 51.	Tumor for many years.	Left side.	Spindle-celled sarcoma with bony tissue.	Enlarged and infiltrated.	Lungs, heart, liver, stom'ch intestine, pancreas, dura mater, palate.	Larynx pressed toward r. side; trachea compressed and adherent to tumor; large blood-vessels and nerve dislocated; esophagus compressed and bent; duration of disease about one year.
33	Ibid	M. 66.	None	Right lobe.		Enlarged; infiltr'ted.		
34	Lentz	F. 56.	Goiter at age of 15.	L. side neck.	Chondrosarcoma spindle cells.			
35	Gatti	M. 40.	Goiter since childhood.	Right lobe.	"Sarcome à cellules polymorph.' Giant, large and med.-sized cells.		In the lungs.	Trachea and large blood-vessels surrounded by growth; suppuration and abscess formation in tumor; streptococci in blood; duration of disease about 7 months.
36	Stewart	F. 41.	Lump at neck 5 years before.	Right side.				Larynx displaced toward left side; tumor adherent to lower part of thyroid cartilage and carotid sheath.
37	Limacher	F. 59.	Goiter for many years.	Right lobe.	Alveolar sarcoma.	Enlarged; hard.	In lungs, manub. sterni.	Tumor had its origin from the endothelium of the blood-vessels; duration about eight months.
38	Ibid	M. 48.5	For many yrs. previously.		Alveolar angiosarcoma.			
39	Graham	M. 60.	Goiter of two years stand'g		Round-celled sarcoma.			Larynx and trachea crowded to r. side; fatty degen. of tracheal rings; when turned flatwise two walls fall together; duration about five months; cause of death, cerebral embolus.
40	My case	M. 47.	None	Right side.	Mixed, round and spindle cells.	Involved.	In lungs.	Compression of trachea; duration about 17 months.

Family history.—No. 13, none of malignant disease; 14, both mother and aunt had a goiter; 24, father had a goiter; 35, mother had a goiter.

in a locality where from one-half to two-thirds of the inhabitants are afflicted with the disease (Bircher), and also remember that in many of the histories of the cases reported, no definite statement is made in regard to previous goiter, it is probable that the proportion of cases in which a benign enlargement preceded the malignant growth is larger than appears from these figures. However, a benign enlargement is not a necessary precursor of the sarcoma. In some of the reported cases, the definite statement is made that no previous enlargement was present. As appears from the appended table, no previous goiter was present in eleven cases, or 27.5 per cent. One can therefore scarcely agree with the statement of Braun that "struma maligna" rarely occurs except in cases in which the thyroid is already the seat of goiter. However, statistics based on such a small number of cases are necessarily uncertain, and additional observations are desirable to settle this point definitely.

The influence of sex is shown to be of some importance. Eighteen of the forty cases collected were females, the remainder males. This is contrary to what might be expected from the preponderance of the non-malignant goiter among women.

That sarcoma of the thyroid occurs more frequently in advanced than in early life is a point on which almost all observers agree. One exception to this is Lücke, who says this form of neoplasm is found oftener in young strong persons, although he admits it has been observed at a more advanced age. Separated into decades, the forty cases herewith show the following distribution:

AGES	CASES
20-30	1
30-40	2
40-50	10
50-60	18
60-70	9

We thus see that an overwhelming majority of the cases occur after the fortieth year, with comparatively the largest number during the fifth decade. To give an adequate and satisfactory explanation for the occurrence of sarcoma in this location, at such an advanced age, contrary to what is usual—namely, the occurrence of sarcomata elsewhere at an earlier age—is, at the present state of our knowledge of neoplasms, impossible. However, we know from the researches of Wölfler that very frequently the parenchymatous elements of the thyroid become atrophic in later life, this atrophy being often accompanied by a copious hyperplasia of the interacinous connective tissue. Whether the pathologic mesoblastic tissue growth which forms the sarcoma is akin to the normal connective-tissue hyperplasia, or an exaggeration of the same, is perhaps an interesting speculation, but a question which must possibly remain unanswered until more is known of the physiology of the thyroid and the etiology of tumors in general.

The tumor more frequently originates in the right lobe of the thyroid than in the left. This is apparent from the examination of the appended table, and is also borne out by the statement of Lücke, that usually only one lobe of the gland is affected, and in the cases observed by him, the right lobe was the one involved. Family history of goiter, or of malignant disease, seems to be an unimportant element in causing a predisposition, being present in only a few cases; neither does previous injury to the thyroid gland appear to be an exciting factor of any moment.

The rate of growth of sarcomata of the thyroid is usually rapid, which may perhaps be explained in part by the copious blood-supply which this gland normally receives. The duration of the disease is sometimes difficult to establish exactly, for here dependence must be placed on the anamnestic statements of the patient, who may have for a short time overlooked a small tumor. Lücke states that the duration of the disease appears not to be over one year. Indeed, so rapid and malignant is the course of these tumors that it leads Kocher to remark, "The more our experience with neoplasms of the thyroid gland increases, the more we come to the conclusion that this organ, aside from the bones, is relatively the most frequent seat of acute sarcomata, which, by means of their rapid development, may very easily be confounded with an acute inflammation."

In those histories which give sufficient data to establish the duration with approximate accuracy, the shortest time was four weeks, the longest seventeen months. A duration of perhaps six to seven months may be considered the average. The cause of death in a large number of cases is interference with the vital functions of respiration or deglutition, due to pressure on the trachea or esophagus. Death has also frequently followed closely after operation for removal of the neoplasm, from suppuration, asphyxia, bronchopneumonia and secondary hemorrhage.

In size, the neoplasm varies from a nodule as large as a walnut, to a tumor filling up the entire anterior surface of the neck, from the hyoid bone above, to the sternum below. The contour is more or less irregular, the surface apt to be nodular and uneven. The consistence may be firm, or fluctuation may be obtainable on parts where the tumor tissue has broken down and become changed to a semifluid, or fluid detritus. The skin covering the tumor may be freely movable and unaltered, or it may be adherent and show the secondary changes due to invasion of its substance by sarcoma cells and subsequent ulceration, although this latter complication is not frequent.

In the early period of its development, the new growth is confined within the capsule of the gland, this condition being present at the time of operation in the case which I observed; but later its confines are passed by the tumor cells and the neighboring tissues are invaded. When the tumor is large, the sternomastoid, sternohyoid and sternothyroid muscles are displaced, thinned, and their fibers separated by the pressure exerted by the tumor, while in some cases the muscle substance is infiltrated by the tumor tissue. (Case 25.)

The trachea, from its intimate relation to the thyroid gland, is one of the structures most frequently involved by the advance of the tumor growth. It may be dislocated toward one side or the other, bent and distorted. Pressure first produces a partial, later perhaps an almost complete obliteration of its lumen, while adhesions between its wall and the new growth rapidly form. Later the tumor cells frequently invade the walls of the trachea, which have become atrophic from pressure; then finally the mucous membrane is perforated and the tumor cells may continue their growth, forming a mass which projects into the treacheal lumen. (Case 25.)

Pressure on and invasion of the esophagus may occur in a like manner, but this complication is perhaps a little more uncommon than the condition just described. The large vessels of the neck are frequently

adherent to, or more or less completely surrounded by the tumor mass. Their lumen may be patent, or as is often found, the wall of the vein is infiltrated by embryonic cells, and its lumen filled by a thrombus, which may also in turn be invaded by the advancing sarcoma. The extent of this complication is well illustrated by a case described by Wölfler. (Case 25.) The wall of the internal jugular was broken through by the tumor, on a level with the third ring of the trachea. Within the vein the tumor mass extended downward into the left innominate vein, and from here into the vena cava superior, projecting from the termination of this vein with a conic extremity into the right auricle. Upward the tumor mass extended into the left facial vein and into the left sigmoid sinus.

The nerve trunks of the neck seem to for a long time resist the advance of the embryonal cells into their substance, nor is there often a disturbance of their function, though entirely surrounded by tumor tissue. That the nerve trunk may, however, be invaded, is shown by the case described by Mathieu. (No. 15 in the table.) The pneumogastric nerve was found to penetrate into the tumor mass and here showed double its normal volume. Microscopically, an infiltration of the nerve trunk by sarcomatous tumor elements was found, the bundles of nerve-fibers being pressed apart and separated from each other by the embryonic cells.

The cervical lymphatic glands are involved in a large number of cases. As shown by the appended table, the cervical glands were affected by the disease in eighteen of the forty cases. The study of the involvement of the cervical lymphatic glands is of importance, not only from a clinical standpoint in differentiating between a benign and malignant goiter, but also from the point of view of the pathologist, because it teaches us, as Braun points out, one of the ways by which a tumor increases in size, and also how these tumors so completely surround the trachea, esophagus and great cervical vessels. Braun made serial transverse sections of the neck in a case of sarcoma of the thyroid, with very interesting results, coming to the following conclusion: "It is usually taken for granted that these rapidly growing neoplasms perforate the more or less resistant connective-tissue capsule which at first surrounds them, and after this has occurred, grow about and surround and press aside the trachea and esophagus. Certainly, however, increase in size of the thyroid tumors occurs as often, if not oftener, in the following manner: the primary tumor coalesces with the neighboring tumors, which in part may have originated from infected lymphatic glands, and in part are metastatic nodules." Thus the trachea, the esophagus and also the large cervical blood-vessels become surrounded by tumor masses. This statement is illustrated by the case which I examined, where a process of the tumor passed behind the esophagus (v. s.). This extension was most probably formed by an infection of a retro-esophageal gland with tumor cells, with subsequent enlargement, and later a conjunction with the primary tumor.

The microscopic appearance of the tumor on section is somewhat variable. As a rule, the cut surface is slightly moist, smooth, transparent (Kaufmann) or translucent and glossy. Kaufmann avers that "these tumors are differentiated by scattered bundles of fibrous tissue which course from the periphery toward the center of the tumor."

The morphology of thyroidal sarcomata has received a careful study from a number of investigators. An analysis of the cases which I have collected from the literature and the two cases reported herewith gives the following results:

1 Round-celled sarcomas	10
2 Spindle-celled sarcomas	6
3 Mixed celled sarcomas	7
4 Alveolar sarcomata 1	
" " and stellate cells 2	
" angiosarcomata 2	5
5 Angiosarcoma	1
6 Fibrosarcomata	3
7 Spindle cells with bony tissue	2
8 Cystosarcoma	1
9 Cavernous sarcoma	1
10 Angiosarcoma	1
11 Lymphosarcoma	1

This analysis shows: 1, the relative frequency of the round-celled sarcoma, which corresponds with the clinical observation of the rapid course of these tumors; 2, the relative infrequency of the fibrosarcoma, which is usually a somewhat more slowly growing tumor; 3, the relatively frequent occurrence of alveolar sarcomata; 4, the total absence of pigmented growths. From which of the connective-tissue elements of the gland these tumors originate can not be definitely stated. Limacher describes one case in which the histogenesis of the sarcoma cells could be distinctly traced to the endothelial cells of the blood-vessels of the glands.

The manner of growth of the tumor and its effect on the normal or strumous thyroid are of interest. It was Kaufmann who called attention to the fact that the sarcoma cells invade the thyroid tissue by growing into the interacinous connective tissue, and by increasing in number, bring this to atrophy and gradually replace it. The pressure on the acini by the growing cells causes a compression, an atrophy and disappearance of the gland tissue proper. The interstitial development of these sarcomata has been emphasized by others, and Kauffman asserts that it must be regarded as the rule.

The secondary changes which occur in sarcomata of the thyroid appear to be no different from those occurring in sarcomata elsewhere in the body. Ulceration appears to be a somewhat unusual complication, probably for the reason that death occurs from one of the above-mentioned causes, before atrophy and destruction of the skin has taken place, and infection of the thus exposed tumor tissue, with pus producing micro-organisms, can occur. In this connection, the case of Gatti is of interest. Suppuration occurred in the sarcomatous thyroid, with the formation of a small abscess, while blood examination revealed the presence of the streptococcus.

Sarcoma of the thyroid is one of the malignant tumors during the course of which metastases frequently form. Metastasis takes place: 1, by way of the lymphatic vessels, as shown by the frequent involvement of the cervical and the occasional enlargement of the mediastinal lymphatic glands; and 2, by way of the blood-vessels, especially the veins. To emphasize this latter assertion, it is only necessary to recall the case of Wolfler, just described. As may be noted by examination of the appended table, metastatic nodules were present in eighteen of the cases, or 45 per cent. exclusive of involvement of the cervical lymphatic glands. The distribution was as follows: Lung, 11; bones, 6; liver, 4; pleura, 3; heart, 2; mediastinal lymph, 2; dura mater, 2; intestines, 2; stomach, 1;

pancreas, 1; kidney, 1; costal cartilage, 1; ant. mediastinum, 1; skin, 1; palate, 1.

As might have been expected, the primary metastases are most frequent in the lung tissue, and next to the lungs metastatic foci are found most frequently in the bones; having been present in 6 of the 18 cases in which metastases were found. This is equal to 30 per cent. Luke gives the frequency of bone metastases in sarcomata which had produced metastases, as 12.7 per cent., so it appears that bone metastases are 2½ times as frequent in sarcomata of the thyroid as in tumors of this class in general.

Limacher, as stated above, found 44 cases of sarcoma of the thyroid in the post-mortem records of the Berne Path. Institute, and among these 44 cases, 35 showed metastases. The difference between these figures and the figures deduced from the series of cases collected by myself is perhaps explained by the fact that in many cases, a post-mortem examination was not made, or if made, was not reported. So, very probably some metastatic foci have been thus overlooked. Among these 35 cases the distribution is as follows: Lung, 27; liver, 7; bones, 8; spleen, 1; brain, 3; heart, 3.

It will be noticed that in this series also, the metastases are relatively frequent in the lungs and in the bones. As far as my knowledge goes, no adequate explanation has been offered to account for this frequency of osseous metastases.

As the conclusions reached in this paper are based on the study of a comparatively small number of cases, and as it is evidently not possible to enumerate all peculiarities and unusual manifestations of thyroidal sarcomata, it has seemed desirable to arrange in tabular form the chief facts of interest in the pathology of these tumors. Special care has been taken to include in this table several points concerning which there seems to be a difference of opinion among the various writers on the subject. An endeavor has also been made to bring out some of the salient points in the pathology of the disease, in each case, in order that a comprehensive picture of the many and various anatomic features might be presented.

In conclusion, I desire to express my sincere appreciation of the kindly interest and the help rendered by Prof. Ludwig Hektoen, in the preparation of this paper.

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XERODERMA PIGMENTOSUM.*

REPORT UPON THE PRESENT CONDITION OF THE INDIANAPOLIS CASES.

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INDIANAPOLIS, IND.

ALSO THE REPORT OF A CASE IN COLUMBUS, OHIO, NOT BEFORE PUBLISHED.

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COLUMBUS, OHIO.

This "truly wonderful and terrible disease," as Dr. R. W. Taylor designates it, was first described by Hebra and Kaposi in their "Lehrbuch der Hautkrankheiten," in 1870. A disease peculiar to early life, presenting polymorphous symptoms, chronic and unending in its course, indelible in its disfigurements, prone even from its benign lesions to destroy or impair vision, to more or less disfigure and destroy the nose, ears and mouth parts, and by its malignant new growths leading to early death.

Xeroderma pigmentosum is a rare disease; the primary article of Hebra and Kaposi was based on four cases only, out of the multifarious richness of their clinical material. Later, two cases were published by Geber, under the title, "A Rare Form of Nævus." In 1877 Dr. Taylor read, before the American Dermatological Association, a paper giving the history of seven cases of this rare disease; Dr. Heitzmann related a case at the same meeting. In 1878, Dr. Duhring reported a case, under the title, "A Rare Case of So-called Xeroderma of Hebra." In 1882, Kaposi published a paper based on two personal papers, using the name "xeroderma pigmentosum," although Dr. Taylor had applied the provisional but very graphic name of "angioma pigmentosum et atrophicum." In 1883, Vidal, out of enthusiasm for Kaposi, called the disease, "La dermatose de Kaposi," a not uncommon name at the present time. In 1884, Pick wrote a clear account of the disease under the title, "Melanosis Lenticularis Progressiva." In the same year Radcliff Crocker published the histories of three cases, with the title, "Atrophoderma Pigmentosum." These are the only cases reported from England. Dr. White of Boston, in 1884, described two cases from his city; in the same year Dubois Havenith reported a case.

This brought our knowledge of the subject to 1888, under ten observers of forty-one cases. Dr. Taylor's cases were the second, sixth and seventh daughters of a family of ten children. The sister of the mother of these children married a maternal second cousin; of their five children, the second and fourth were victims of this dread disease. Dr. Taylor observed two other cases in different families. This distinguished and fortunate observer contributed a paper to the New York *Medical Record*, March 10, 1888, under title of "Xeroderma Pigmentosum and its Relation to Malignant New Growths of the Skin," in which may be found a résumé of the forty cases known at that time. Accompanying this paper is an extended table of two pages, giving the essential facts of all the then recorded cases; the age, sex, age at onset, age when tumors appeared, nature of the tumors, name of the

* Presented to the Section on Cutaneous Medicine and Surgery, at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

observer, and extended remarks, critic, historic and suggestive, on the individual cases. There was also a series of six half-tones of five of Dr. Taylor's personal cases—one showing the progress from the eighth to the thirteenth year, with the development at the latter age of well-marked malignant tumors of the eyelid and cheek.

It would seem that the wide dissemination of the knowledge of this disease through Dr. Taylor's paper, in the *Record*, should have brought the disease into such prominence that all the cases scattered through our country would at once have been recognized. But such was not the case. A family of Low German descent, which had lived for two generations within a half-hour's ride of Indianapolis, presented three cases covering a period of twenty-six years, without recognition of the true nature of the disease. Dr. Taylor's paper was the source of my knowledge of the disease, and enabled me, with the help of the articles in the atlases of Taylor and Morrow, and the brief notes in the various works on dermatology, to identify two cases in the family cited. I wrote a description of the cases for Dr. Taylor, and also sent to him a life-size water-color drawing, made by Mr. Richard Gruelle of Indianapolis, of one of the cases—a girl of 16 years. Dr. Taylor was kind enough to present the case to the Section on Cutaneous Medicine and Surgery at the Washington meeting in 1891. This was published with an excellent chromo-lithograph in the *Journal of Cutaneous and Genito-Urinary Diseases* for April, 1892, and also, with the same plate, in the *Indiana Medical Journal*, September, 1892. In the meantime a third case of the disease developed in an infant daughter of the family, and the two cases, with the plate, were published in the "Transactions of the Indiana State Medical Society" for 1892, so that, altogether, some six thousand copies of this excellent colored plate—the best graphic representation of the disease extant, according to Dr. Taylor's view—were widely distributed throughout the country.

The most extended histologic studies of the tumors of xeroderma pigmentosum known to me are those made by Dr. S. Pollitzer of New York City. They were published with sections in the same issue of the *Journal of Cutaneous and Genito-Urinary Diseases*, in which occurred the plate and description of my own case. Dr. Pollitzer's material was from one of Dr. Crocker's three London cases; the material was taken in 1890. In 1892, Dr. Crocker's three cases were still alive, but two of them were progressing to a rapidly fatal termination, and in one the disease was quiescent. They comprised two brothers and a sister of the same family; in each case the disease was discovered soon after the first year of infancy. They were respectively 12, 10 and 9 years of age at the time they were reported.

The sections presented by Dr. Pollitzer exhibit a wildness of growth equivalent to pathologic riot. In a pin's head area are seen epithelial ramifications as the prevailing type. Intermingled with these are islands of spindle-celled sarcoma and round-celled sarcoma; also epithelial pearls and granulation tissue. Illustrative of the variety of structure in these tumors is a remark of Dr. Ludwig Hektoen, professor of pathology in Rush Medical College, Chicago, who wrote me that he made careful sections and studies of some of the material sent him from my cases, and "knew less of the pathology of the disease than ever before."

In the extended paper of Kaposi, pp. 728 to 742, in the volume on "Diseases of the Skin" (Twentieth Century Practice, 1896), the author gives nine sections illustrating the pathologic anatomy. The sections and discussion of them show that the development of carcinoma and sarcoma in xeroderma pigmentosum is due to the disproportionate growth of the epithelioid structures, as distinguished from the connective-tissue stroma. The author further states, that essentially the same condition is met with in the senile skin in those cases where sarcoma or carcinoma arises from preexisting papillary warts, or pigment nævi. In the old people, we attribute the cancer growth to the senile changes in the vessels and the senile degeneration of the connective tissue of the cutis. These multiple epithelioid growths in old people, while akin histologically to those of xeroderma, do not warrant us in calling such cases Kaposi's disease—a disease which always begins in the first year of life. Indeed, its congenital tendency is its most marked etiologic characteristic, and is further emphasized by the occurrence of the disease in several children of the same family. Among the forty-three cases first presented by Kaposi in tabular form, two brothers and sisters were affected in six families, three children in each of four families, and in one family seven children. Kaposi gives the total number of cases published up to 1895, as 76, reported by thirty different authors. The American reporters are: Drs. Taylor of New York, 7 cases; J. C. White of Boston, 2 cases; Duhring of Philadelphia, 1 case; M. B. Hutchins of Atlanta, Ga. (not Hutchinson, as in Kaposi's paper), 1 case; C. Heitzmann of New York, 1 case; Arthur H. Bowen of Columbus, Ohio, 1 case, and the three Indianapolis cases which are the subject of this note—a total of sixteen American cases, as far as the present writer can determine. I have not calculated from the literature the number of families in which the seventy-six cases occurred—probably less than thirty families have furnished all the cases. The Portugal cases, occurring in late life—40 to 80 years of age—it seems to me ought not to be recorded as xeroderma pigmentosum.

But it is not necessary to pursue further the histopathology of a disease of which perhaps not more than threescore cases are authentically known. Dr. Taylor has summed up the microscopic findings of Kaposi, Geber, Neisser and Pick (American Text-Book of Genito-Urinary, Venereal and Skin Diseases), and he refers the reader to the elaborate exposition of the histology of the morbid growths given by Dr. Pollitzer and already referred to in this article.

I quite agree with Dr. Taylor in his insistence that xeroderma pigmentosum is a disease of infancy, and is rarely, if ever, developed in childhood and adolescence, and probably never in adult life. The undoubted cases occurred in the first and second years of life, and probably every true case began before the sixth month. In the early stages, the brown spots are easily mistaken for ordinary freckles; the red flush is not uncommon in infancy; unobserving parents would not take alarm, generally speaking, until extreme bronzing, ulcerations or tumors appeared.

Certainly, the three cases under my observation developed an aberrancy of redness and freckling noticed by the parents by the sixth month of life. In the case of the little girl, now 6 years old, whom I have frequently seen since her third month of life, atrophic macules not larger than an eighth of an inch in diameter, were the first symptoms observed. These atrophic spots were not preceded, as far as I could learn from

the parents or observe for myself, by any preliminary rash, pigmentation or telangiectasic areas. Dr. Hardaway has quoted this order of development observed by me in his description of xeroderma pigmentosum ("Morrow's System," vol. iii, p. 405, foot-note).

Dr. Taylor has had his series of cases under observation for twenty years; I do not know that any one of them has survived for twenty years, but various members of the two families have, some one or other, been suffering from this disease through that time. He is very emphatic as to the disease commencing in very early life. Of the cases reported by Kaposi, Vidal, Heitzmann, and others, as beginning as late as 9, 16, 72, and even 88 years of age, he is skeptic, as any one would be who is practically conversant with genuine cases of xeroderma pigmentosum. "It should be distinctly borne in mind," he says, "that the coincidence of the various pigmentations of the skin, with attendant epitheliomatous and other malignant growths does not of necessity constitute xeroderma pigmentosum." A child may have freckles in early life and malignant tumors in later life, and yet not suffer from true xeroderma. The weight of all testimony goes to show that the disease is one of early childhood, up to 5 or 10 years of age, frequently limiting itself to the skin alone—showing only redness, white atrophy, intense freckles, or even glossy black patches of pigment, contraction and ectropion of the lower lids. The tumors may come by the fifth year; they may be longer delayed, but their appearance marks the stage of the disease dangerous to life, unless they are promptly and thoroughly eradicated.

Drs. Wm. G. Corlett of Cleveland, Guido Bell and Louis Burckhardt of Indianapolis, were good enough to visit my cases with me in March, 1888. Dr. Corlett had seen the oldest case, now 22 years of age, five years before at the meeting of the Mississippi Valley Medical Association, in Indianapolis, where they were also seen by Dr. Ravogli of Cincinnati, Dr. W. T. Belfield of Chicago, and others interested in dermatology. The young woman is physically well preserved; she has been usually strong and robust, fond of work, from which she is only deterred by her photophobia and the gradual encroachment of the disease upon the lower conjunctival surfaces. The lower lids are destroyed; the cornea is clouded; the pupils are sadly malformed by the contracting iris; the tears flow on the face; vision now only amounts to the perception of light and the appreciation of large objects. The nose is eaten away to the bridge; the rims of the ears are eroded; the hands are warty and rough. The largest single tumor was on the right hand at the base of the little and ring finger. This I removed several times with the curette, going to the periosteum, but never entirely prevented its return at the margin in ever-widening circles until, at the suggestion of Dr. Burckhardt, I applied Fowler's solution several times a day to the scraped out areas. I have removed numerous warty tubercles from the fingers, ears, cheeks, lips and lower eyelids. Sometimes the electric needles were applied, under chloroform, to the tumors on the lids, with the happiest results; again the curette was used. Bleeding is profuse, but easily checked by pressure; sometimes the tumors drop off and disappear, as in the case of ordinary warts. Arsenic internally has no effect. At one time I removed a fibrosarcoma from the inner surface of the arm, just above the joint. It was the size of a large egg; the skin over it was normal. The general skin of the body is always dry; the legs and arms are branny, the trunk and scalp not affected, nor the hair or nails. The mucous membranes are normal; menstruation was regular from the sixteenth year; the weight is about 150 pounds. Within the year just closed (1898) she has developed some cachexia, palpitation, rapid breathing and insomnia; these symptoms are in abeyance this spring (1899).

The little sister, six years old, is in the freckled stage, with white areas and beginning contraction of the lower lids, and ectropion. The few epitheliomatous nodules which have appeared upon her lips and chin have been removed sometimes by the fingernail, again by the spoon, and afterward treated with Fowler's solution, with good results. By proper care I think such a case may go on to womanhood without noticeable mutilation of the ears, fingers, nose, lips or cheeks. But the ectropion and the involvement of the conjunctiva is the most difficult symptom to control. In no case should the nodules be allowed to grow to the size they are shown in the graphic representations of the disease, as for example in the case figured by Dr. Taylor in plate xix of the "American Text-book," already mentioned. The danger of the disease is in the warty tumors. These were allowed to grow in the case of the brother, two years older than the patient above, who died of the disease in his ninth year. The nose and lips were destroyed; the child died of exhaustion subsequent to inanition and possible sepsis.

There are no metastatic growths in xeroderma; the glands and lymphatics are free. It is a disease of the skin primarily and especially of those parts exposed to the light, although it has developed upon the feet and ankles of children who have worn shoes and stockings from infancy. Left alone, any of the nodules may become deep ulcers; the ears are cropped, the nose destroyed, the capsule of the eyeball eroded, the teeth exposed, and the patient passes swiftly on to death, as was the case with the boy above described. In the absence of the knowledge of the disease the cases were regarded as an aberrant form of lupus; indeed, that was the name given by Jonathan Hutchinson—"multiple pigmented lupus."

Xeroderma pigmentosum is a family disease; it is not hereditary; not all in the family are affected. In the present family were seven children; the first-born, a male, is 29 years and healthy; the second, a boy, died of the disease; the third is Mary, above described, and probably the best preserved and most typic of all the cases tabulated in the literature of this disease; the fifth and sixth are healthy boys with fair skins and no trace of disease; the seventh is the child of 6 years, whose case I have watched from infancy. When I first saw Mary in the City Hospital of Indianapolis, she was brought to the clinic to be treated with Koch's tuberculin. Three bottles had been sent to President Harrison, by the German government. A bottle was sent to me for experiment in the Hospital tal of President Harrison's adopted city, and she was the second case treated in the United States, as far as I can determine, with Koch's tuberculin. It was given under the direction of Dr. Theodore Potter, at my request, but produced no reaction. I had been negligent of the literature of xeroderma pigmentosum, and it was through Hutchinson's picture of his "multiple pigmented lupus," in "Sajous' Annual" that I correctly diagnosed the disease and was led to the study of Dr. Taylor's paper of 1888.

But why, it may be asked, is so much attention given to a disease which has no practical interest because of its extreme rarity? No case has been observed in Chicago, with her cosmopolitan population of over one and one-half millions—more than all the people of California. Only three cases are reported from the British Islands. The publication of the Indianapolis cases led to the diagnosis of one case in Ohio. Save these four cases I know of no other childhood cases in the United States, except those of Dr. Taylor and those of Dr. White of Boston. One case from Michigan was described to me in such clinical detail that I am reasonably certain it was xeroderma pigmentosum, but I can not make it matter of record, as the child is dead and the relator is now insane. The cases are valuable, as all knowledge is valuable. A

Dr. Arthur H. Bowen's case of xeroderma pigmentosum.

species is none the less a species in botany or zoölogy because it is restricted to a small area or is represented by but a few individuals.

I will close this paper by the addition of the Ohio case which was recognized upon the publication of the Indianapolis cases in the *Journal of Cutaneous and Genito-Urinary Diseases*. The case fell under the observation of Dr. Arthur H. Bowen, lecturer on dermatology, in Starling Medical College, Columbus, Ohio. This case has never been published. I submit also the photograph of Dr. Bowen's case. Dr. Bowen's report was received June 1, 1898.

I also include the report upon the histopathology of the tumors, which was made in the fall of 1892, by Dr. J. C. Graham, then lecturer on bacteriology and pathology in Starling Medical College, but now resident in Denver, Colo.

REPORT BY DR. BOWEN, COLUMBUS, OHIO, OF HIS CASE OF XERODEMA PIGMENTOSUM.

The patient, T. J., aged 9 years, was admitted into St. Francis Hospital in August, 1892. His parents are both living; are healthy, and give no history showing any hereditary disease of any kind. The father is Welsh, the mother American; at time of marriage the mother was 17 years of age. The patient is one of five children, all living except one, who died of "inflammatory croup." The patient is the only one affected; the others show no symptoms of this or any other skin disease. He weighed 14 pounds at birth, and was perfectly healthy up to the age of 8 months, when the present trouble made its first appearance.

The patient was of light complexion, with brown hair and blue eyes, and was three feet eight inches in height. At time of admission into the hospital he was spare and slightly emaciated, but quite strong; digestion fairly good; bowels slightly constipated; skin dry, rough and slightly scaly; sebaceous and coil glands inactive. The affected skin was more thickened and inelastic than the normal skin, and more sensitive.

The history corresponds with that of other cases reported. The mother says the disease first appeared upon the cheek below the eye, as bright red spots, which she called "sunburn." The spots increased and spread rapidly, the skin in places broke, discharging a light-colored pus. After the red spots disappeared the freckles and white, glazed, pearly condition of the skin appeared. The affected surface was not completely covered with the pigmented spots, until about the age of 7 years. The drawn or contracted appearance of the mouth and nose followed the subsidence of the erythematous lesions.

The patient complains of his eyes being weak, and the mother says he has had conjunctivitis.

The ulceration in the ear, for which the boy was brought to the hospital for treatment, began as a wart about six months before. It had been cauterized by the family physician every second day, but continued to grow worse.

The eruption involves entire face and neck, extending from the edge of the hair to the border of the third rib; the hands, fingers, wrists and forearm to the elbow; the feet and legs to the knees.

The eruption began upon the face, spread slowly, involving in the order named the neck, hands, arms, feet and legs, becoming general over affected surface in about six years. The lesion consisted of erythematous spots, pigmented spots, telangiectases, atrophic spots, warts, tumors and ulceration. The erythematous patches began at about the eighth month of age, irregular in outline and of a pinkish red color. Pigmented spots or freckles followed the erythema, appearing about the second year, becoming general over the affected surface at about the sixth year.

The freckles over forehead vary in size, brown or blackish in color, irregular in outline, and in distribution most marked upon face, neck and hands, most numerous upon neck and hands.

The atrophic spots appeared first during the second year, and are most marked about the mouth and upon the back of the hands. These spots varied in size, were irregular in shape, and of a white, glistening or pearly appearance.

These caused a partial stenosis of the mouth and nose, giving them the drawn or contracted appearance seen in the photograph.

The telangiectases, were innumerable, small, stellate, pin-head sized, most distinct upon the neck.

The affected surface became a bright pinkish red color when the circulation was slightly excited.

The warts were more numerous on hands and neck. They were pea-sized and smaller, roundish, elevated and rough.

The tumors appeared at the fifth year. They were few in number and of slow growth, round and oval, pea-sized, smaller and longer, freely movable, firm and slightly elevated, with a covering of normal skin. They were better felt than seen. They were situated on the temples at outer angle of either eye, on nose between eyes, and on the neck.

The ulceration upon the right ear involved the entire thickness at one place and extended into the external meatus. It developed from a wart of six months' duration. The ulcer is irregular in shape with rough edges. The discharge was pustulous, abundant and offensive, forming yellow crusts. The ulcer was painful at times.

As the prognosis was unfavorable the patient remained in the hospital but a short time.

I learned recently, indirectly, that the patient was dead. I wrote to a physician where the patient lived asking for some information regarding the boy, but have had no reply to my letter. I enclose the report made by Dr. J. C. Graham of Columbus.

DR. GRAHAM'S REPORT.

"The growths given me for examination were three in number, two the size of a white bean, one of which was removed from the forehead, the other from the back of the neck, the third, about as large as a split pea, came from the forehead. I was not present when the growths were cut out and did not have an opportunity to examine them fresh; they were placed in alcohol and subsequently imbedded in celloidin for cutting. In attempting to cut them I found the two larger growths were calcified, necessitating their removal from the celloidin and decalcification before sections could be made.

"There was very little of interest in the smallest growth. The epidermal layer was thin, having only a few strata of cells, the rete was much atrophied, papillæ were almost entirely wanting, and glands were altogether absent. The cutis consisted of firm connective tissue whose nuclei stained fully. The hair follicles were much atrophied, the lymph spaces were filled with small round cells, and the blood-vessels were few in number.

"Sections of the large tumors made subsequent to decalcification showed the following: Epidermis thin, no papillæ, glandular structures and hair follicles wanting, and the greater part of the mass made up of epithelial cells supported by a scanty reticulum of connective tissue; the cells were greatly degenerated and took the stain very slightly. Calcification began in the centers of the nests of epithelial cells, and was present in nearly every one. The degenerated condition of the structures made an exact histologic analysis difficult.

"I regret very much not having secured a specimen from the ulcerated mass on the ear, since it might perhaps have shown a malignant character, such as growths described by a number of writers on the histology of xeroderma pigmentosum.

"So far as I have been able to review the literature of this disease, no former case has presented calcification of the nodules."

A RARE AFFECTION OF THE EYE: CONGENITAL IRIDEREMIA.*

BY FLAVEL B. TIFFANY, M.D.

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L. M. W., a girl of 12 years, was brought to my office by Dr. T. S. Greer of Edgerton, Kan., Feb. 15, 1899. As the Doctor presented the child with her father, he said that he thought he had a very singular case. Looking at the child's eyes, I remarked to him: "You have succeeded, Doctor, in dilating the pupil *ad maximum*," to which he replied, "No, I have never used any mydriatic in this case, nor has the girl taken any medicine that would induce mydriasis." Upon a closer examination I discovered that instead of the pupils being dilated, there was an absence of all the

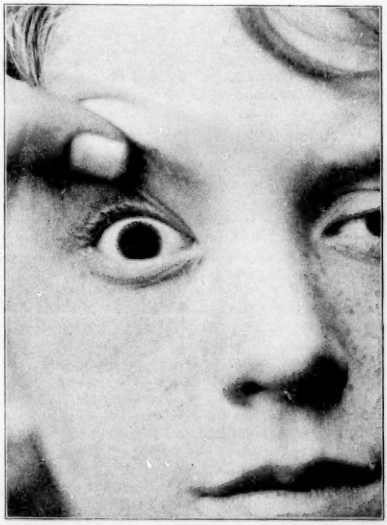


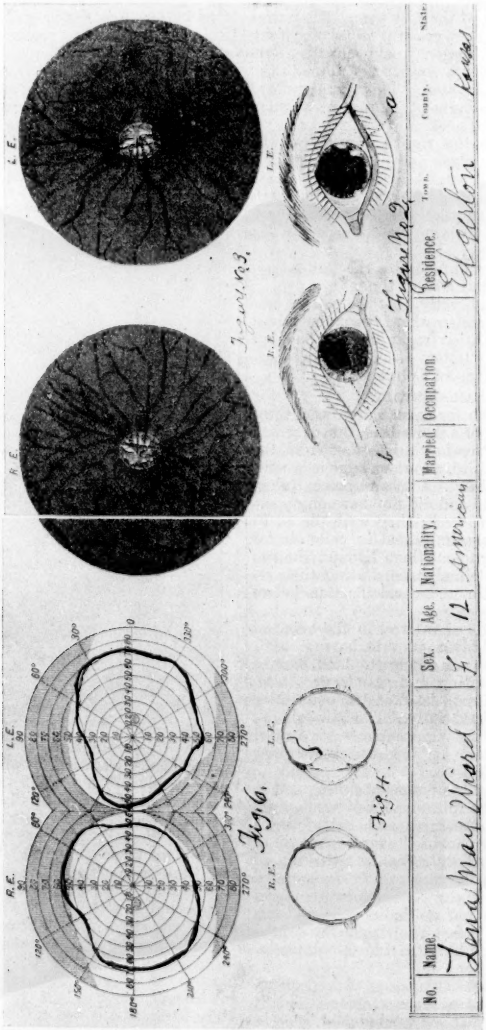
Figure 1.

iris excepting a narrow rim at the ciliary border, about 1.5 mm. wide (Figs. 1 and 2), and this was ragged or serrated, having no circular fibers. There was a slight scallop at the zenith of both irides. (Fig. 2). By either the direct or indirect method there could be seen a black zone encircling the entire periphery—the ciliary body—with a transparent space all around, through which the bright reflex of the choroid and retina could be seen. Encircling the lens at its ciliary margin was a narrow crown of centripetal striæ resembling arcus senilis lentis; this I named *arcus juvenilis lentis*, the first I had ever seen; probably this was the suspensory ligament where it joined the lens capsule.

The little patient was suffering from photophobia, always closing the palpebral aperture as in albinism, thus regulating the amount of light to the fundus of the eye. Her vision was but 20/100 of either eye, and a convex spheric glass of 2.50 D. only improved

*Read before the Midland Ophthalmological Society, March, 1899.

to 20/80. Cylinders did not improve, although there was considerable regular astigmatism, as the ophthalmoscope showed, on the retina and optic disc. (Fig. 3.) She did not have any pain in the eyes, only dread of light, but frequently suffered from headache, and usually had to look at objects for some time before she was able to distinguish them. This I attribute to the feeble power of accommodation, as was perceived by the excellent view one obtained of the ciliary bodies, and perhaps to the irregular astigmatism. There were also several opaque leucomas, or rather nebulæ, near the margin of each cornea. (Fig. 2, *a*, *b*.) The opacities probably aggravated the photophobia and caused in a measure the irregular astigmatism. The latter produced a warped or wavy appearance of the retinal blood-vessels when the fundus was viewed by the ophthalmoscope. The pupil was larger than would be possible in complete mydriasis. The narrow rim of iris was of a light grayish hazel, similar in color to the iris of her father. Eserin would not contract the pupil, nor would atropia dilate it in the least. There were no circular fibers and the radiating ones



were short and irregular in length. Within the vitreous body of the right eye there was an opaque floating body (Fig. 4) which had one end attached to the posterior lobe of the lens capsule; the other end was whipping about like a sail in the wind, and looked not unlike a cysticercus. The father said that his daughter's eyes always had the present appearance, as though "they were all sight," as he expressed it, until she was about 4 years old, when the narrow band (Fig. 1) began to appear, but this band had not widened any for several years. Previous to the third year of age the eyes were totally black, as is shown in the small photograph (Fig. 6), taken when she was but 3 years old.

In looking up the subject in the literature, I find that only a few lines are devoted to this peculiarity. Some authors merely mention the fact that we occasionally have irideremia; some do not even mention it. Very few attempt to give the etiology or account

in any way for the strange phenomenon. One suggests that it may be due to inflammation of the uveal tract during fetal life. I have visited almost all of the large eye clinics of Europe and New York, and I have besides treated, in my private and clinical practice, about 15,000 patients, and this is the first case it has been my fortune to meet. In this case the irideremia is not entirely complete, there being, as I have stated, a narrow rim of iris encircling the ciliary region. Many of the authors state that irideremia is bilateral, whereas in coloboma of the iris it is frequently unilateral, and when the latter anomaly is confined to one eye, it is usually in the left. Coloboma is almost always associated with microphthalmus or macrophthalmus. There is frequently nystagmus associated with irideremia, but in the case under consideration there is no involuntary oscillation of the globe. Stenopaic disc is advised as treatment, but this did not improve vision in the least in my patient. I prescribed only spheric glasses, as cylinders did not help. I regret that the patient does not live in the city, that I might have an opportunity of seeing her often and making further observations, more especially concerning the action of the ciliary body and the modus operandi of the power of accommodation. Evidently the ciliary muscle as well as the ciliary processes was defective. The field of vision in this case was nearly normal, as Fig. 6 indicates.

RETENTION CYST OF GALL-BLADDER.

APPENDICAL ADHESION CAUSING INTESTINAL OBSTRUCTION; FIBROMYOMECTOMY COMPLICATED BY PREGNANCY.

BY J. HENRY BARBAT, M.D.
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Mrs. P., aged 29 years, previous health good except for chronic constipation, had first attack of pain three months previous to operation; the pain being in the region of the gall-bladder and lasting for three or four hours. The second attack occurred a month later and was so severe that I was called in to relieve her. The pain was continuous in character with occasional exacerbations, which caused her to cry out. The bowels were constipated and the patient had been vomiting; there was icterus, but no mass could be felt in the abdomen. A diagnosis of gall-stones was made and the patient advised to have an operation. She preferred to wait, and as the pain subsided somewhat, thought an operation unnecessary.

A month later I was called in and found exactly the same condition of affairs with the exception that the gall-bladder could be felt somewhat to the right of the normal position. Her temperature was 103 F., pulse 110. She consented to an operation and was removed to the hospital. The abdomen being opened at the right border of the rectus muscle, the gall-bladder was found distended, thickened, inflamed and adherent to the surrounding structures and covered with patches of lymph. An endeavor was made to bring out the duodenum, in order to make a cholecystenterostomy, but after liberating the adhesions it was found that the inflammatory thickening had rendered the walls of the gut so thick and brittle that it was impracticable to attempt anastomosis.

Careful palpation of the gall-bladder and cystic duct failed to reveal any calculus. An aspirator needle was inserted into the gall-bladder and a clear thick fluid removed, which proved to be mucus, showing that the cystic duct was completely occluded. The only thing to do was to drain the viscus, so a second small incision was made about an inch to the right of the first and the gall-bladder stitched to the peritoneum from the inside. This proved a very satisfactory method, as there was plenty of room to work through the large incision, and it would have been impracticable to have worked through the smaller one from the outside. The reason for making the second incision was that the gall-bladder lay about one and a half inches more to the right than normal, and owing to its thickened and inflamed condition it was not advisable to make sufficient traction to draw it to the first incision. The gall-bladder was opened on the third day, about four ounces of mucus evacuated, and a drainage-tube inserted. Every other day for three weeks following, the wound was dressed and from one to twenty stones removed, ranging in size from a pinhead to a pea. In all, 143 stones were removed; the

wound was kept open for one week after the last stone was taken out, and then allowed to close.

For the first ten days no bile came through the wound, showing the cystic duct to be obstructed either by a stone or thickening of its wall; after this period the bile began to flow in increasing quantities until about a pint a day was passed; the wound closed completely four days after the drainage-tube was removed, and the patient has been free from pain ever since.

SLIGHT APPENDICAL ADHESION CAUSING OBSTRUCTION OF BOWEL.

Master P., aged 10 years, previous health poor, had been under a physician's care for seven weeks before I saw him, on account of some obscure bowel trouble which appeared to get worse. The attending physician, believing the appendix to be at the bottom of the trouble, asked me to see the case in consultation. The child had been having paroxysmal pains all over the abdomen, which had become so severe that he would scream and writhe in agony about every hour. He was constipated and required large doses of purgative to obtain an evacuation of the bowels. He was vomiting and having occasional hiccough, and had lost his appetite. Examination revealed a marked degree of emaciation, with a distended abdomen. The abdominal wall was so thin that the loops of intestine could be distinctly seen, and during a paroxysm the intense vermicular action was plainly evident. The colon was not distended, so a diagnosis of partial obstruction of the small intestine was made and an immediate operation advised. The abdomen was opened in the median line and the loop of obstructed bowel sought for; a thick tense band was felt passing from about the level of the umbilicus to the right inguinal region, which proved to be the appendix.

The tip was found adherent to a loop of ileum and was freed without difficulty; the organ being congested and thickened, was removed. The obstructed bowel was found just above the point where the appendix was adherent, and the whole mass brought out of the abdomen. I attempted to loosen the adhesions which caused the obstruction, but found the bowel so brittle that it was considered dangerous to continue, so I made a lateral anastomosis about three inches below the obstruction, by means of a medium-sized Murphy button. The button was passed on the twelfth day. The relief was immediate and the boy began to call for food on the third day. His appetite was ravenous and he gained fifteen pounds in three weeks. I was sorry that I had to leave the obstructed bowel in the abdomen, but the little patient was so weak and took the anesthetic so badly that we thought him dead several times during the operation, and as the mesentery was very much thickened and the mesenteric glands in the neighborhood of the obstruction much enlarged, it would have required more time to remove the loop and make an end-to-end anastomosis than would be safe under the circumstances. An examination of the loop showed that the appendix had become adherent to the bowel and held it in such a position that a sharp bend was produced; at first this did not cause much disturbance, but after inflammatory thickening began the obstruction became progressively worse until at the time of operation it was almost complete. One of the enlarged mesenteric glands was removed and examined microscopically, but showed nothing but inflammatory disturbance, thus eliminating a tubercular origin.

FIBROMYOMECTOMY COMPLICATED BY PREGNANCY.

Mrs. G., aged 39 years, IIpara, youngest child 4 years old, previous health good, two years ago noticed some discomfort and pain in the lower part of the abdomen. In March, 1898, she felt a lump on her right side, in the inguinal region, for which she consulted physicians who advised its removal. Her menstruation had been regular up to July, 1898, when it ceased until October, then appeared for a few days and stopped entirely. Her abdomen had been growing steadily larger until, when I first saw her in January, 1899, she appeared as large as a woman at term.

There was considerable pain during the two months previous, which had been steadily increasing until she was willing to undergo any operation for relief. She had noticed no signs of pregnancy. Examination showed an irregularly enlarged abdomen, evidently containing one or more large fibrocystic tumors and a few small ones. No sharp dividing line could be felt between the masses, so it was concluded that they were all part of the uterus.

A possibility of pregnancy was discussed, as the os was blue and patulous, but the patient could not believe herself in that condition and, even if she were, the pain and progressive emaciation were sufficient incentive to remove the diseased parts as soon as possible.

She was operated on at the Waldeck Hospital, on Jan. 26, 1899. Before opening the abdomen it was deemed advisable to curette the uterus as it would probably have to be removed. At the first stroke of the curette, fluid began to pour out and continued until about a gallon had come away. As it was evident that the fluid was amniotic, the curettement was dispensed with and the abdomen opened near the median line. A large mass presented, which was delivered and removed by applying clamps to the broad ligaments and cutting above them. The vessels were picked up separately and ligated, and the cut surfaces whipped over with fine catgut.

The cervix was left. The patient made an uninterrupted recovery except that the pulse was slightly accelerated, keeping above 85 for two weeks, and probably due to the removal of both ovaries. I regretted that I had not implanted a piece of one of the removed ovaries in order to prevent sudden menopause and its accompanying nervous phenomena. The specimen was composed of a large fibroid which occupied the whole anterior and lateral walls of the uterus. There was a smaller fibroid on the fundus, and a fetus six months old, which occupied the posterior portion of the uterus. The anterior wall of the uterine cavity was formed by the large fibroid and was soft and friable; the remaining walls were very much thinned and softened.

Cases of this character impose grave responsibilities on the operator, more so if it is possible to make a diagnosis of pregnancy before operating; if we can determine definitely the age of the fetus we are justified, if the case is not too urgent, in waiting until the completion of the seventh month, and removing the fetus before beginning the removal of the fibroid uterus. In the case before us there was nothing to indicate the existence of pregnancy, except the cessation of the menses, and as the patient had practically stopped since July, 1898, we would expect her to have felt life before the time of her first visit; but even if a positive diagnosis of pregnancy had been made it would not have been a contraindication to immediate

operation, as the patient was in a very miserable condition, and in the light of subsequent developments it would have been dangerous to have allowed her to go to term, as there would have been danger of rupture of the uterus if the labor pains were at all severe. As to whether the tumor would have prevented the descent of the fetus if the case had gone to labor, it is difficult to say, as the fibroid might have been pushed up out of the pelvis by the subsequent growth of the child and left the birth canal free; but it would have been at the expense of the cervical canal, which would have been thinned to a dangerous extent.

SOME PATHOLOGIC CONDITIONS OF THE OVARIES THAT CAUSE GREAT PAIN.

BY GEORGE HALLEY, M.D.
KANSAS CITY, MO.

No physician who has been engaged long in the practice of medicine has not had complaints coming to him from his female patients, of excessive pains in the lower portion of the abdomen. The pain is not always confined to the pelvic portion of the abdominal cavity; but often extends both above and below it. The pain radiating upward from the pelvis, follows a line about two inches inside the crest of the ilium, radiating upward and backward, often losing itself beneath the floating ribs. Downward, it is found most often in the front of the thigh. Occasionally it is found on the outside of the thigh, and rarely in the back part of it. Sometimes it is confined entirely to the lower portion of the iliac fossa and upper two inches of the thigh. The pain is usually of a dull, aching, persistent character; increased markedly by physical exertion of any kind, and very seriously aggravated by movements of the pelvic contents or pressure on them, no matter how slight. Often the pain is a real hyperesthesia, the slightest touch exciting manifestations of pain as much or more than a deep pressure. It is occasionally found to be much worse as the menstrual period approaches; gradually improving after the flow has ceased, and reaching its maximum of improvement at the middle of the time intervening between the periods. At other times the pain appears to be persistent and is of about equal intensity throughout the menstrual period, diminishing, or becoming entirely absent during the period of flow, to return again with a full or increased intensity, three or four days after the cessation of the flow.

The physical symptoms attendant on, and coincident with this painful condition, are usually constipated bowels, painful or difficult micturition, great nervousness with prostration, often amounting almost to a mania. Sleeplessness is often a marked symptom, practically disqualifying the sufferer for any of the ordinary duties of life. The pathologic condition that is most often found is perhaps cystic degeneration of the ovarian substance. But this condition is not always present, and in a goodly number of cases that I have met with in my recent investigation of this question, there has not been so much of a cystic degeneration as of a varicosed condition of the pampiniform plexus. This, I am satisfied from observation, is a very frequent cause of the painfulness complained of when there is no, or very slight, disease of the ovarian structure. I have again and again found the veins composing the plexus as large as a lead pencil, and in some cases, tortuous, with the walls enormously thickened. One lady, on whom I operated recently, had no cystic degeneration of the ovarian tissue, but some of the vessels of the plexus were as large as the internal jugular vein, and the walls of these vessels were abnormally thick in proportion to their size. In these cases the train of morbid symptoms are, to some extent, characteristic of the pathologic conditions found, and enable the observer to determine, with considerable degree of accuracy, the character of the disease he is about to encounter.

Thus the cystic ovary is excessively painful to the touch, either through the vagina or rectum, while in varices of the plexus, the ovary is not so painful, or not painful at all. The pain is continuous throughout the intermenstrual periods, but little difference being observed at any time.

The pain is usually much worse as the menstrual period approaches, and remains severest in cystitic ovaries during the time of flow. Not so, however, with those in whom a varicosed condition of the venous plexus exists. They usually suffer most during the intermenstrual periods, their period of rest being after the flow has been fully established. Such patients usually express themselves as being able to do more work and feel better while they are menstruating, than at other times. The pain is often so severe that the patient has to remain in bed, the flow generally giving relief after the first day of menstruating.

Examination of the organ, after the abdomen has been opened, will show it to be much in the same condition as the testicle of a man suffering from varicocele. Indeed, it may with perfect justice be said to be a varicocele of the ovary. These women, too, usually differ in the amount of blood lost at each menstrual period, from those suffering from cystic disease of the ovary. The flow is usually much longer, and the blood lost during the period very much greater. The flow, too, is frequently found recurring with greater frequency, the periods not uncommonly recurring two or three times in a month. In cystic disease of the ovary, the periods, as a rule, are not regular. They are almost invariably much farther apart, five, six, seven or eight weeks, or often three, five, or six months elapsing between menstrual periods.

This is not a constant condition by any means, but sufficient to be remarked. The writer has many times found those suffering the most, perfectly regular in the period of recurrence, as well as in the amount of blood lost. Occasionally a varicosed condition of the vessels and a cystic degeneration of the ovarian structure are found together; then the symptoms will be mixed.

As to treatment, much has been written of late on the benefit of hot douches in pelvic pains and inflammations, and while no one can be more willing to give credit to its usefulness and curativeness than myself, I have found that when used freely and hot (as it always should be to get the best results) in those suffering with either cystic disease of the ovaries, or varices of the plexus, it greatly aggravates the symptoms, rendering life a burden to the sufferer. The indication, when the disease has been diagnosed, is to either entirely remove the ovary and tube with the upper portion of the broad ligament, or to ligate both ends of the vein of this plexus with some good strong material, and cut out, or ligate and cut out,

veins, just as is done in most cases for the radical cure of varicocele. This requires more care in execution and detail of the operation than an ordinary removal of the ovary. If the plexus has to be cut away, the ligation must be very thorough indeed, as the artery will, for a time at least, produce a highly hyperemic condition of the ovary, and there is danger of a persistent bleeding from the ends of the severed vessels. If the ovary and tube are to be removed, care must be taken to pull well up inside the clamp all the vessels of the plexus in order that they may be caught and severed in the ablation.

I have often thought that the reason so many operations on the ovary are unsuccessful (failing to relieve the pain for which the operation was done) was owing to the veins of the plexus being the organ diseased, and not the ovary or tube. What effect the ligation of the veins will have on the future of womanhood in those operated on in this way, I am unable to state, having only operated on three in this manner, and those quite recently. So far, I find the pain is relieved as thoroughly as if ovary and tube had been removed. As to what effect this operation would have on those suffering from cystic disease of the ovary, I am inclined to think that benefit, if not a cure, might result. There is nothing present in cystic disease of the ovary that would positively necessitate its removal, except it be the pain it occasions. If then, the ligation of the venous side of the circulation, which is a comparatively simple operation, would bring about as good results it would be the better operation to do, as it would still leave the woman sexually perfect.

This paper has not been written with the purpose of positively indicating a line of treatment, but rather as suggestive in calling professional attention to a phase of this exceedingly painful condition that distresses so many surgeons beyond measure, and to the further fact that little or nothing has been written on this subject up to the present date.

I shall carefully note in the future the benefits that seemed to have been gained in the few cases operated on, and at a future time, hope to report further observations along this line.

SUMMER CARE OF THE TUBERCULAR.

BY WILLIAM PORTER A.M., M.D.
ST. LOUIS, MO.

One of the practical questions that arises in the mind of almost every physician, especially if he lives in the Mississippi or Ohio valley, is "How can I tide my tubercular cases over the hot summer months?" In my own practice I have found that the July and August temperature of 90 degrees and more, the close, humid atmosphere, and the nights with scarcely a breeze, are conditions that are greater hindrances in the management of such cases than the inclemency of the winter months. Patients can be protected against cold and change, but there is little defence against heat and humidity.

While not so enthusiastic in commending climate as a *sine qua non* in the treatment of tuberculosis as I have formerly been, yet I am sure that many of us lose much in the continuity of medication and care of these cases during the hot season. So it is with renewed interest that I read such communications as have appeared in the JOURNAL from Drs. Parker, Reyburn and others.

There are certain things I want for my patients in summer—cool, dry atmosphere, not too much elevation, good hygienic surroundings, freedom from great diurnal thermometric variation and, withal, economy and convenience both in regard to travel and stay. If, with these conditions, we can have good wholesome food, pleasant environment, and a continuance of such methods of treatment as have been found best in the individual case, there should be, in most instances, a continued gain.

So it is that the physicians in the East have found the Adirondacks suitable for their patients in summer, or send them to a sanitarium in the hill country of New York or New England, while we in the West naturally have to do with Colorado and the Ozarks.

There is one region, however, within reach of all, which has to a great measure been overlooked. The northern lake region, especially near Petoskey, Mich., has long been a resort for hay-fever patients, but I have also had marked good results in cases of tuberculosis and chronic bronchopneumonia, during the summer months.

The location that I have found best, after six years' experiment, is the Les Cheneaux country, some ten miles north of Mackinac Island. Being just under the northern peninsula of Michigan, it is protected from the north winds, and the temperature is more even than I have found elsewhere. The atmosphere is dry, for the waters of the great lakes at this latitude are cooler than the air in summer and there is little evaporation, while the sandy soil quickly absorbs any rainfall. During the day the temperature is from 70 to 80 and about 8 degrees less at night. Even "The Sleepy Oregon" is no more conducive to rest.

Here, among these beautiful islands, where living is cheap, the sailing and fishing and the woods are a perpetual guard against ennui, and the average gain in weight of my tubercular cases was about a pound a week, with a corresponding increase in vitality. During the last four years, I have sent to this region, each summer, from twelve to fifteen cases of phthisis in the first and second stages, and the result has been uniformly good. All the indications for therapeutic care should be kept up, and in that clear atmosphere, among the pines, the air, doubly purified, as it comes over the long reaches of Lake Huron, tonics, chest exercise, serum, and whatever else may be used, seem to have a greater potency than when used in the artificial surroundings of a heated city.

Evacuation of Biliary Passages.—E. Rose publishes a couple of observations and a number of tests on the cadaver to prove that a simple incision in the gall-bladder and curettement of the gall-bladder, the choledochus and the bile-duct, are as effective in removing calculi as cholecystectomy and choledochotomy. One of his patients died not long after, and the absence of any peritoneal reaction was noted. Two stones differing from those removed during the operation were found in the pancreatic portion of the choledochus, and seven others in the hepatic duct, resembling in every respect those removed. No better result would have been attained with choledochotomy or cholecystectomy, which would not have prevented the emigration of the calculi from the hepatic duct to the choledochus. An assistant draws the liver and false ribs upward, which opens Winslow's foramen and enables the operator to seize the stone in the choledochus with his finger, and by inserting a small curette through the incision into the choledochus, between the stone and the wall, the stone can be extracted without opening the duct.—*Deutsche Ztft. f. Chir.*, xlix, No. 6.

Correspondence.

Shall We Follow China?

CHICAGO, April 21, 1899.

To the Editor:—The recent examination for internes at the Cook County Hospital, Chicago, taken in connection with the mania which now prevails in the public schools and in various departments of the so-called civil service, of rating students and men solely by a written examination, reminds one very much of the academic bureaucracy into which China crystallized two thousand years or more ago, and from which it is only to be aroused by dismemberment.

It is presumed that the County Hospital Board endeavors to secure the best educated and best trained young men to act as resident physicians in the County Hospital, to the end that the sick poor may receive the best treatment. The qualities which such young men should have might be enumerated as follows: They should be strong and well. They should have the ability to recognize disease, and the more rare quality of tact in the treatment of the sick person. They should be able to act quickly in all cases of emergency. They should be capable of and accustomed to making a study, both clinical and pathologic of any disease, and they should have experience in recording these studies.

It is hardly presumed that internes are much accustomed to methods of treatment. The treatment is left largely to the attending staff. For years this staff has seen fit to select its internes wholly upon the basis of a written examination. All other methods of testing the fitness and ability of the applicant have either been unthought of or laid aside on account of supposed difficulty of application, or on account of the fact that they could not be applied in an impersonal manner. The result of this method of examination has been most disastrous to medical education in Chicago. Beginning with the Northwestern University Medical School in 1882, quiz classes have been formed among the students who have been excused from attendance upon all lectures, and the winter of the last year in college has been spent in a systematic cramming, a giving up of the student's time and effort to a series of medical catechisms. Every year the senior classes of our three or four prominent colleges have observed the significant spectacle of a segregation of the brightest and most devoted members of the class into a small group, upon which the energies of the faculties were concentrated. These men, in an intellectual way, are groomed and dressed and fed somewhat as the football teams, the pride of our universities, are in a physical way. The other students have inquired why it was that the same method was not applied to all the students. If the catechism and cram is good for the best and most diligent portion of the class, would it not be better for the average man, a group of which most of them consider themselves members?

The writer maintains that the system of written examinations as a test of professional ability is wholly inadequate, and that its almost universal practice by State boards of examination and civil service boards is pernicious in the last degree, and tends toward a species of orientalism which is as revolting as it is irrational. Frederick the Great is said to have selected his body guard with a measuring-rod. All soldierly qualities except height and breadth of shoulder were neglected. The Cook County Hospital staff selects its internes solely by a species of catechism. No account is taken of actual clinical experience or ability, and no test is made of laboratory or operative technic. The applicant's health, his moral qualities, and his previous medical work are left wholly out of consideration. No attempt is made to measure his medical perspective, his knowledge of medical literature.

It is too soon to see the fruit of this pernicious system. The stream of internes graduating from the County Hospital has already furnished some of the most brilliant names in the register of American medicine and surgery, but one is struck by the fact that of the more recent internes entirely too many have fallen into a relative oblivion, and too many more have set their mark for medical usefulness, if one may judge by their literary efforts, entirely too low. How much of this is due to the unfortunate trend of their education, how much is due to the lack of true professional interest in the selection of the attending staff of the hospital, and how much is due to the greater stress in recent professional life, is a matter of personal opinion and conjecture. One thing is absolutely sure and agreed upon, and that is that the influence of written examinations at the County Hospital, and elsewhere, is giving the most unfortunate trend to medical education in Chicago.

BAYARD HOLMES, M.D.

Question of Priority.

CRAIG COLONY, SONYEA, N. Y., April 18, 1899.

To the Editor:—Apropos to your editorial on "A Question of Priority" (vide JOURNAL, April 15), I desire to submit the following comments:

That science should know no national limitations is often quoted, but it has not become as yet a practical fact.

To one having occasion to look up the bibliography of subjects in medical science, they are often struck with the extreme limitations of many so-called reviews in the German, French and English publications.

This state of affairs can not be from a lack of expressed desire on the part of such reviews, as they continually proclaim that the breadth of their horizon is not bounded by the language of their publication. Neither can it be because of lack of knowledge of languages other than their own. Much less can it depend upon a lack of worthy matter to incorporate in their journals, as the equality of such journals on the same subject is well known.

One is forced to the conclusion that it must rest upon a lack of appreciation of the reviewer, based upon national characteristics of prejudice. We do not urge this idea because so many Americans fail of representation in such journals, although we shall have something to say about that later.

We deplore the fact because, time and money being limited, we can ill afford to squander both, because of national prejudices creeping into scientific matters.

In the special branches of medicine, one looking up the literature of the subject is at once made aware of the author's limitation to the language of his own country. This is carried to such an absurd extent that the observer quotes and cites writers of a narrow field of investigation of his own acquaintance, who are altogether unworthy of being classed with capable workers of other countries who have a lifetime of experience to draw from. Not infrequently such a writer or reviewer poses as an original, when one day's work in bibliography would prove the humiliation of his position. Equally ludicrous is the position taken by our own reviewers in abstracting foreign literature only.

We have for years been wondering when American reviewers would take a different position. Any student of medical literature knows how common it is to see a journal issue abstracts from foreign scientists only. Indeed, we have heard more than one prominent clinician or pathologist declare that he could get no recognition at home, until he sent his articles abroad to be published in a different language, clothed in such vesture of which the American journal was in search. When a foreign publication of the original was not possible, a review abstract was sufficient to bring attention at home. When stated thus plainly we at once recognize the absurdity of such a Philistine act.

We are well aware that as a whole, American writers have

not yet become trained for long, arduous and painstaking investigation, but this should not exclude the few who are.

There are many very carefully reported clinical phenomena recorded by American physicians in American journals which, if allowed to go unnoticed, would be not only an injustice to the individual worker but a positive loss to medical science.

We hope the time is near at hand when American reviewers of medicine will fully acquit themselves of the stigma of slighting any medical investigators of whatever nationality, and we also hope that foreign reviewers, too, will speedily mend their ways.

Very truly,

L. PIERCE CLARK.

Naphthalin in Typhoid Fever.

BUFFALO, N. Y., April 22, 1899.

To the Editor:—Dr. Woldert's article in the JOURNAL of April 15, on the use of naphthalin in typhoid, is so much in line with my own hobby, that I may be pardoned for a brief discussion of the subject. In August, 1895, I published (*Boston Med. and Surg. Journal*) a report of the use of charcoal and such direct antiseptics as iodoform and salol in the treatment of typhoid and, since then, I have used salacetol as the active antiseptic, in preference to the benzol and double benzol derivatives. It seems to me that the main object to be attained in the treatment of typhoid is the reduction of associated infectious processes. We all acknowledge now that the elevation of temperature is not the prime consideration, and, considering that leucocytosis is not normal to the course of the disease, even in favorable cases, I can not see why its artificial production by the Brand baths should be attempted. In such diseases as diphtheria, pneumonia, septicemia, etc., it is quite well established that a mixed infection is vastly more dangerous than one representing practically the pure culture of one bacterium. So, in typhoid, if we can have merely typhoid, without intestinal putrefaction and septic ulceration with corresponding involvement of the mesenteric lymph nodes, perhaps of the gall-bladder, pleura, lungs, etc., the patient remains only comfortably sick, delirium is lacking or at a minimum, the temperature is never dangerously high after treatment has had a few days to become operative, septic complications are lacking and convalescence begins in about three weeks. As Dr. Woldert has independently noted, the absence of indican is a practical evidence of the lack of intestinal putrefaction and of the favorable course of the fever. In my cases, the Ehrlich test has usually resulted negatively, indicating that the corresponding more or less specific poison has been absent.

Diet is also an important factor. It always used to puzzle me to understand why, in a disease of excessive oxidation, the natural force and fuel foods, fats and carbohydrates, should be withheld, why, in a disease of perverted nitrogenous change, animal foods should be used to add to the possible leucomains and other toxic derivatives from meats; why milk which curdles in the stomach should be a soft, unirritating mass in the intestine, while bread, etc., which melts into a pulp in the stomach, should bring on relapses by local effect on the iliac ulcers located nearly twenty feet from the pylorus; why, in the absence of digestive power on the part of the stomach, peptic digestion should be mainly relied on; why constipation should be a desideratum in a disease in which most of the elimination of bacteria and their products must take place by the bowel; why, if the bowels must be moved, it is dangerous to use salines and mercury, which act mainly on the hepatic secretion and that of the unaffected upper small intestine. Little by little, I have made practical application of these theoretic considerations and have found no exception to the general rule that it is safe to rely on physiologic laws.

Very truly,

A. L. BENEDICT, M.D.

174 Franklin St.

Dissemination of Tubercle Bacilli.

SAVANNAH, GA., April 20, 1899.

To the Editor:—Referring to the editorial in the JOURNAL of April 15 (p. 827), I think Flügge greatly exaggerates the danger of infection by means of the fine drops expelled from the mouths of phthisic persons in coughing. He has *not* by any means proved that tuberculosis is *commonly* transmitted by such drops. I believe the only danger, save in exceptional cases, of the open mouth coughing, is that such drops soon become dried and act as so much dried sputum. The danger of inhaling such drops under ordinary circumstances is slight.

Cornet's recent works proved conclusively that tuberculosis may be disseminated by dried sputum dust.

Very respectfully,

J. J. CURRY,

Acting Assistant-Surgeon U. S. A., Pathologist to the General Hospital, formerly assistant in pathology Harvard University.

Recurring Gonorrhea.

FORT WAYNE, IND., April 24, 1899.

To the Editor:—In the JOURNAL of April 22, Dr. Harry Greenberg, Milwaukee, reports a case under the above title, but this is a misnomer. It ought to be called "a non cured clap." An injection of a 1 to 2 per cent. solution of nitrate of silver would, in twenty-four hours, have cleansed the field, and the discharge would have revealed the gonococcus. This should always be done, before a patient can be said to be cured, and I even make culture experiments with pleuritic serum; this makes the diagnosis doubly sure. The physician ought always to be sure of his diagnosis; if he does not know how to handle a microscope or make culture experiments, let somebody do it who does.

CARL PROEGLER, M.D.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are noted below.

American Gynecological and Obstetrical Journal, April.

1.—*Reminiscences of Founders of the Woman's Hospital Association. Thomas Addis Emmett.
2.—*Plea for More Correct Application of the Emmett Methods in Plastic Surgery. W. D. Haggard, Jr.
3.—*Preliminary Report on Use of Doyen-Thumin Crusher with a New Instrument for Extending its Work on the Broad Ligaments. Henry Parker Newman.
4.—*Clinical Contribution to Treatment of Malignant Tumors of Ovary. X. O. Werder.
5.— Cesarean Operation, with Report of Two Cases. A. McDiarmid.
6.—*Operations During Pregnancy. C. P. Noble.

American Journal of Obstetrics, April.

7.—*Diagnostic Value of Pain in Gynecology. Richard Lomer. Introduction by A. Sänger.
8.—*Clinical History of Uterine Polyps. B. C. Hirst.
9.—*Convenient Technic for Delivery of After-coming Head where Gross Disproportion Exists; with Comparative Considerations. Frank A. Stahl.
10.—*Phthisis in Pregnancy and Labor. W. Reynolds Wilson.
11.—*Treatment of Asphyxia in Children, by use of a Soft Rubber Catheter. S. Ormond Goldan.
12.—*Influenza Complicating Uterine and Pelvic Disease and Pregnancy. F. C. Ameis.

International Medical Magazine, April.

13.—*Relation of Gout to Rheumatoid Arthritis. Wm. Ewart.
14.—*Dilatation of the Stomach, with Especial Reference to Etiology and Treatment. John A. Lichty.

Therapeutic Gazette, April.

15.— An Ophthalmic Clinic at the Jefferson Medical College Hospital. G. E. de Schweinitz.
16.—*Lumbar Puncture Followed by Relief of Symptoms—Four Cases. J. Madison Taylor.
17.— Morphin in Uremia. J. W. Meek.
18.—*Organotherapy in Gynecology. W. A. Newman Dorland.
19.— Tuberculous Peritonitis. Anna M. Fullerton.

Pediatrics, April 15.

20.—*Eight Cases of Laparotomy for Intussusception; Six Recoveries Charles P. B. Clubbe.
21.— Second Contribution to Surgical Treatment of Intussusception, with Cases. Henry Howitt.
22.— Cases of Congenital Displacement of the Scapula. J. E. Virden.

Ophthalmic Record, April.

23.—*Necessity for Knowing Range of Accommodation. J. G. Huizinga.
24.— Histology and Etiology of Posterior Lenticonus. R. Denig.
25.— Diabetic Cataract with Report of Five Operations. Robert L. Randolph.

27.—*Pulsating Exophthalmus from Aneurysmal Varix in Neck. H. Gifford.
27.— Keratitis Ulcerativa Marginalis. W. A. Martin.
28.— Angioneurotic Edema of Conjunctiva. Alexander Duane.
29.—*Divergent Strabismus Cured by Correction of Myopia. Alexander Duane.
30.— For Removal of Warts of Lid. Almon Brooks.
31.—*Diagnostic Significance of One-Sided Amblyopia Without Ophthalmoscopic Lesions. H. Gradle.

Richmond Journal of Practice, March.

32.—*Typhoid Perforation; Operation; Recovery. Hugh M. Taylor.
33.—*Function of Vermiform Appendix and its Bearing on Pathogenesis of Appendicitis, with a few words on General Principles of Treatment. R. M. Slaughter.
34.—*Plea for Better Compensation for Physicians. O. M. Smith.
35.— Local Treatment of Burns. G. A. Brown.

Medical Age (Detroit, Mich.), April.

36.—*Some Remarks on Tropic Malaria. Frederick W. Mann.
37.—*Fracture of Articular Portion of Astragalus, and Fracture of Both Bones of Forearm, one Three Weeks After the Other, with Radiograph of Both Fractures. Angus McLean.
38.— Strength Husbanding. Robert Bruce.

Medical Monograph (Topeka, Kan.), March.

39.—*The Sputa. Isaiah Frank.
40.—*Pulmonary Sounds. William E. McVey.
41.—*Acute Catarrhal Pneumonia. Wm. N. Beggs.
42.—*Influenza. S. G. Stewart.
43.—*After-Effects of La Grippe. S. P. Plummer.
44.—*Is There a Tubercular Diathesis? Charles T. McClintock.
45.— Vocal Resonance. E. M. Magruder.

Columbus Medical Journal, April 4.

46.—*The Liver. D. N. Kinsman.
47.—*Infant Feeding. E. A. Harper.

Pacific Medical Journal, April.

48.—*Mother vs. Child. C. K. Bonestell.
49.—*Some of the Clinical Aspects of Granular Kidney. Samuel West.
50.—*Nationalization of Practice of Medicine. George Adam.

St. Louis Clinique, April.

51.—*Danger of Quinin in Malarial Hematuria. W. H. McLean.
52.— Essentials in Chemistry. C. W. Lillie.

Journal of Medicine and Science, April.

53.—*Non-Malignant Ulcerations of Rectum. B. B. Foster.
54.— Syphilis of Rectum and Anus. G. A. Pudor.
55.— Rest in Disorders of the Eye. C. E. Norton.
56.— Bacteriology and its Relations to Medicine. John Lord.
57.— Masso-Therapeutics. E. H. Judkins.

Texas Courier-Record of Medicine, April.

58.—*Etiology and Medical Treatment of Gall-Stones. W. H. Washburn.

Alabama Medical and Surgical Age, April.

59.— Some More Common Diseases of Rectum. B. R. Pearson.
60.—*Use of Ozonized Air in Diseases of Lungs and Air-Passages. J. F. Peavy.
61.—*Some Observations on the Exhibition of Iron. G. A. Gilbert.
62.— Preventive Measures. Sterling A. Wood.
63.— Some Things that Every Physician Should Know Concerning the Management, Treatment, etc., of the Eye. R. F. Harper.

Texas Medical Journal, April.

64.—*Treatment of Surgical Shock by Saline Infusion. J. Shelton Horsley.
65.—*Report of Three Cases of Aortic Aneurysm. J. N. Hall.
66.— Smallpox and its Management. John W. Kenney.
67.—*Cesarean Section with Recovery of Mother, and Child Saved. James Byars.

North Carolina Medical Journal, April 5.

68.—*Empyema—Its Diagnosis and Treatment. C. D. Hill.
69.—*Duration of Acute Gonorrhea and Importance of Treatment. H. T. Bass.
70.— Care of Sick and Wounded in War of the Revolution. Francis R. Packard.

Medical Times and Register (Phila.), April.

71.—*Treatment and Therapeutics of Gout or Rheumatism in Relation to the Heart. J. J. Caldwell.
72.—*Orthopedics for the General Practitioner. Edward A. Tracy.

Medical Bulletin (Phila.), April.

73.— Judicial Methods—Medicolegal Testimony—The Zelner Case. John V. Shoemaker.
74.— Report of an Interesting and Complicated Case. Edwin V. D. Gazzam.
75.— Acute Catarrh of the Middle Ear. E. B. Gleason.

Post-Graduate (N. Y.) April.

76.— Febrile Conditions, Their Relation to Body Heat Production, and Their Treatment. Wm. Henry Porter.
77.— Crisis in Pneumonia. Andrew H. Smith.

Maryland Medical Journal, April 22.

78.—*Forced Inflation and Pneumomassage in the Treatment of Otitis Media. Edward E. Gibbons.
79.—*Massage in Aural Diseases. A. D. McConachie.

Medical Review (St. Louis), April 22.

80.—*Personal Experience in Operating with the Use of Infiltration Anesthesia. L. T. Riesmeyer.
81.— Medical Gynecology. A. W. Latimer.

Medical Record (N. Y.), April 22.

82.— Notes on Cysts of the Breast. Wm. T. Bull.
83.—*Salicylic Acid in Treatment of Pneumonia. Wm. C. Sebring.
84.— Case of Resection of Bowel for Carcinoma. Carlos C. Booth.
85.—*Lung and Heart Reflexes: A Contribution to the Study of Heretofore Undescribed Clinical Phenomena. Albert Abrams.
86.—*Use of Extract of Suprarenal Capsule in Ophthalmic Practice. Frank N. Lewis.
87.—*Surgical Treatment of General Peritonitis, with Report of Cases. Frank D. Gray.

Philadelphia Medical Journal, April 22.

88.—*Röntgen Ray Diagnosis of Renal Calculus. Charles Lester Leonard.
89.—*Medical Expert's Duty and Where He Most Frequently Fails in it, with Illustrations from Zelner Case. John V. Shoemaker.
90.—*Cerebral Hemorrhage with Temporary Glycosuria: Report of Case. R. B. H. Gradwohl.
91.—*Anthrax: Influence of Tanneries in Spreading the Disease. Mazyck P. Ravenel.
92.— Contribution to Study of Micrococcus Tetragenus in Acute Angina. August Jerome Lartigau.
93.— Case of Poisoning by Rhus Toxicodendron Acquired in an Unusual Manner. J. Alison Scott.

New York Medical Journal, April 22.

94.—*Syphilis and the Liver. J. G. Adami.
95.— Logic Analysis in Therapeutics. Charles E. Quimby.
96.— Report of Necropsy in Case of Acromegaly, with Critic Review of the Recorded Pathologic Anatomy. Louis J. Mitchell and E. R. Le Count.
97.—*Treatment of Syphilis. Boleslaw Lapowski.
98.—*Treatment of Gall-Stones. Walter Lester Carr.
99.— Surgical Treatment of Gall-Stones (Biliary Calculi). Carter S. Cole.

Medical News, April 22.

100.—*Chronic Nephritis Affecting a Movable Kidney as an Indication for Nephropexy. George M. Edebohls.
101.—*Galvanocaustic Radical Treatment of Hypertrophy of Prostate. F. Kreissl.
102.— Differential Diagnosis of Pelvic and Abdominal Diseases in the Female. (Concluded.) Paul F. Mundé.

Cincinnati Lancet-Clinic, April 22.

103.— Cross Presentations. Robert W. Stewart.
104.— Treating Organic Ailments Through Direct Antagonism. George Sprague.
105.— Growing Pains. D. S. Hanson.

Boston Medical and Surgical Journal, April 20.

106.— Sir Benjamin Collins Brodie, Bart.: a Sketch. James G. Mumford.
107.— Traumatic Cerebral Edema; Its Pathology and Surgical Treatment. J. W. Courtney.

1.—Reminiscences of Founders of the Woman's Hospital Association.—Emmet's paper is a readable history of the early days of modern gynecology in New York, and is full of interesting facts. As a sample may be mentioned that one in which he tells of the criticism of a distinguished London gynecologist, who held that the frequency of fistula operations in the Woman's Hospital reflected on the skill of American physicians. Emmet was able to furnish him, at his request, for use in a work being prepared, with a tabulated list showing that the majority of these cases were immigrants, mainly from the British Isles, who had been transferred directly from the ship to the hospital. The data were not used.

2.—Emmett's Methods in Plastic Surgery.—Haggard writes of the comparative neglect of minor plastic surgery on account of the greater attractiveness of the major operations. Among the causes of the imperfect results of such operations he reckons: an exaggerated idea of the importance of the perineal body as a sort of keystone in supporting the uterus; a failure to recognize the part played by the pelvic fascia in maintaining the pelvic floor; and especially the failure to appreciate the results of its injury and the mechanics of the production of rectocele, together with the proper methods for its correction. Added to this he thinks the neglect of silver wire for suture is also a cause of the poor results obtained. He goes over the whole subject of Emmet s operation in detail.

3.—Vide JOURNAL, March 4, 1899, p. 484.

4.—Vide JOURNAL, March 4, 1899, p. 485.

6.—Operations in Pregnancy.—Noble reports his experience in operating on pregnant women, twelve cases in all. One woman aborted, but this was not due to the operation, as the ovum was already dead. A case of myomectomy also aborted. The operation in this case was undertaken on the diagnosis of ovarian tumor or it would not have been attempted. One case of hysteromyomectomy did well; the very rapidly growing tumor could hardly have permitted the pregnancy to progress to term. Five cases of ovariotomy all did well, and Dr. Noble deprecates the conservatism that would spare operation in these cases, with the risk of contusion, infection, etc., and the consequent peritonitis. In one ovariotomy, together with left ovarian tumor, there was parovarian tumor of the right side, which was removed, leaving the right ovary and tube intact. In one fatal case of obstruction of the bowels, the seven-months pregnant uterus interfered seriously with the release of adhesions, and Noble believes a hysterectomy might have saved the patient's life. A case of anal fistula was operated on without interference with the pregnancy, and he believes that in such cases, and in some of hemorrhoids, operation is indicated in spite of the patient's special condition.

7.—Diagnostic Value of Pain in Gynecology.—Lomer's article is a continued one and will be noticed in full when completed.

8.—Clinical History of Uterine Polyps.—Hirst discusses uterine polyps and reports five cases illustrated by cuts.

9.—Delivery of After-coming Head.—Stahl describes a new technic for the extraction of the after-coming head in cases of difficult delivery where perforation has been necessary. He describes a case in full and the different methods that have been devised to meet this complication, and gives a bibliography of the literature.

10. Phthisis in Pregnancy and Labor.—Wilson thinks the influence of parturition on the consumptive woman is unfavorable. His advice is that a person suffering from systemic tendency to this disease should not marry. Phthisical women should not nurse their children, although the danger of infection in this way is slight.

11. Asphyxia in Children.—Goldan reports a case in which he used a rubber catheter for intubation into the larynx, in a case of asphyxia during anesthesia, together with artificial respiration. He thinks that the intubation of the catheter into the larynx had possibly some influence in assisting respiration in a reflex way.

12. Influenza Complicating Uterine and Pelvic Disease and Pregnancy.—Ameiss describes the complications on the part of the uterus and the pelvic organs from influenzal infection. Among these are severe hemorrhage, interference with the natural progress of parturition; complications in labor, which is usually tedious, and subsequent prostration, also the exacerbations produced by influenza in cases of chronic pelvic diseases.

13. Gout and Rheumatism.—Ewart considers the relationship of rheumatoid arthritis to gout to be one of contrast; their differences are much more marked than their affinities. Gout is a clinical species; it is hard to define arthritis, and in some aspects it may be regarded as a morbid result rather than an independent disorder. Dr. Ewart compares the two in their resemblances and contrasts, and recognizes some mixed conditions in which arthritis may supervene on the gouty diathesis. He does not positively commit himself to any one of the theories of the pathology of arthritis, the neural, the infective, and the rheumatic. The treatment of the two conditions being very different, much depends upon the diagnosis, which in developed cases is hardly difficult. In the aberrant ones, where there is a suspicion of both, he would, where the diagnosis is uncertain, treat chiefly the arthritis and be sparing of the energetic remedies for gout. Local measures may be the same for both, the eliminative treatment also. Arsenic, he considers a safe remedy even in mixed cases where a vigorous tonic treatment is not strongly indicated. The general medical treatment of arthritis must adapt itself to individual cases, but usually it will be well to disregard indications derived from a mistaken diagnosis of rheumatism, and not be deterred by a gouty history or antecedents from using measures to improve the general health and strength of the patient. In doubtful cases there is generally more rheumatoid arthritis than gout.

14. Dilatation of Stomach.—Lichty's paper takes up the etiology and treatment of chronic dilatation of the stomach. Under the first head he includes mechanic causes, such as overeating or too rapid eating, chronic gastritis, abnormal tumors, and pregnancy, chronic constipation and faulty dressing (corsets, etc.). Under indirect or nutritional causes he enumerates worry, anxiety and overwork, neurasthenia, various diseases, such as tabes, multiple sclerosis, febrile disorders; anemia and chlorosis are probably coincident rather than causal. The treatment is hygienic, dietetic, physical and therapeutic. Under the first head he particularly specifies hygienic dress, not constricting the waist; under the second, he prefers liquid diet, at first mainly of milk and raw eggs, and gradually coming back to solid food. Anything tending to fermentation, potatoes, starch and white bread, as well as raw fruits and excess of sweets and fats are to be avoided. Under physical treatment he includes abdominal massage and exercise, faradism and alternating hot and cold packs or douches to the abdomen. As regards drugs, he recommends tincture of nux vomica or quinin and strychnia. In hypoacidity, small and repeated doses of HCl are useful; if the reverse condition is present, a mixture of sodium bicarbonate, magnesia and bismuth may be of advantage. Two cases are reported to illustrate the treatment and its results.

16. Lumbar Puncture.—Taylor advocates lumbar puncture as a therapeutic measure in conditions of excessive cerebrospinal overtension, and reports four cases in which it produced apparent improvement. Nothing special was learned from examinations of the fluid withdrawn. The operation is safe when properly performed and therefore he concludes it is justifiable as an aid to treatment.

18. Organotherapy.—Dorland reviews the literature of ovarian therapy in gynecology, and reports two personal observations. His conclusions are as follows: 1. The ovaries, in common with other glandular organs in the body, exert an occult, but very positive, influence upon the general organism. 2. When this influence is removed, either by the natural atrophy of the glands at the climacteric, by destruction of the ovarian stroma from pathologic processes, or by extirpation of the organs, there results a series of distressing phenomena, including hot and cold spells, nervous and mental manifestations, and neuralgic attacks. 3. The administration of ovarian substance or of the extract of ovarian tissue is promptly and very generally followed by a marked amelioration of these symptoms. 4. The average dose required varies from two to five grains of the extract administered thrice daily. 5. Excessive doses of the remedy will be followed by cardiac and nervous manifestations necessitating a diminution in the dose administered or a complete, though temporary, change of treatment. 5. In some cases there appears to be developed a tolerance to the remedy whereby its effects are diminished in intensity. For this reason it is better to begin with small doses, and gradually increase the amount as may be indicated in the given case.

20. Laparotomy for Intussusception.—Clubbe reports eight cases of laparotomy for intussusception in children aged from five months to 11 years, making a total of twenty-seven cases on which he has thus operated. He advocates the use of preliminary injections in these cases, holding that, if used early, reduction may be accomplished, and in all cases the mass is reduced in the easiest and best way. The injection should be given under an anesthetic while the child is prepared for operation and if the tumor can still be felt after it the operation should proceed. If it has entirely disappeared, operation may be deferred and the case carefully watched; if it reappears, the abdomen should be opened. Neglect of these precautions has brought injection into disrepute.

23. Accommodation.—Huizinga calls attention to certain elements in the estimation of accommodation, the proper range of accommodation in each, and the special work required of the eye, and lastly the power of endurance of the ciliary muscle. (Vide JOURNAL, Feb. 18, 1899, p. 348.)

26. Exophthalmus and Aneurysm.—Gifford reports an apparently unique case of pulsating exophthalmus from aneurysmal varix in the neck. The cause was not, he thinks, as usual, due to rupture of the artery within the cranial or orbital cavity, but was produced by the increased pressure in the sinuses caused by the aneurysm in the neck, the pressure being transmitted through the petrosal to the cavernous sinus.

29. Divergent Strabismus.—Duane very briefly reports a case of angioneurotic edema or urticaria of the conjunctiva occurring suddenly in the course of treatment of a conjunctival catarrh and lasting only half an hour, with no recurrence.

31. Amblyopia.—Vide JOURNAL, April 22, 1899, p. 855.

32. Typhoid Perforation.—Vide JOURNAL, April 15, 1899, p. 839.

33. Vermiform Appendix.—Slaughter holds that the appendix is not a useless rudimentary organ, but has a useful function as a secretor of mucus for lubrication of the lower intestines. This mucus requires a free passage, as in case of any obstruction, an inflammation is set up. This is the chief exciting cause of appendicitis. The organ is changed into a retention cyst with decomposing and germ breeding contents. An impaired circulation in the appendix is another condition favoring appendicitis. He classifies appendicitis into the obstructive, as explained above, and the rheumatoid, a less serious condition, rarely requiring operation. The distinctions of catarrhal or endo appendicitis and ulcerative or parietal appendicitis are of no practical value, really signifying only stages of one and the same condition. The diagnosis of appendicitis is easy as a rule, though it should be made with due caution if other conditions exist that might simulate it. In his experience most cases recover without operation or recurrence, and in most others there is time to decide as to operation and obtain competent help. The cases of fulminant appendicitis, however, though rare, are yet frequent enough to vitiate this as a universal rule. Recurrent cases call for operation. The medical treatment is quiet, rest in bed, liquid diet, salines and anodynes, preferably codeia, to relieve pain. High temperature and great pain are not necessarily unfavorable symptoms. Low temperature (under 100°, rapid, weak pulse and pinched expression, are danger signals.

34. Physicians' Compensation.—Smith pleads for better compensation, and with reason, as the law and courts of Virginia are certainly lacking in justice and consideration as regards our profession. Seventy five cents a day for jail attendance, fifty cents for all day in court, two dollars and a half for a post-mortem examination, are disgracefully low compensation for a skilled professional man who has on top of this to pay a license fee of $10.75 per annum for the privilege of practicing medicine and giving, in the way of charity work, to the public, more than any other class of men in the State. The scale of fees proposed by Dr. Smith is certainly moderate enough. These are: ordinary visits, $2; prescription, $1; examination in lunacy or idiocy, $5; post mortem, $5 to $20. If the private patrons are like the public ones in Virginia, our profession

must be laying up all their treasures above, there is no chance here below.

36.—Tropic Malaria.—Mann reports experience with malaria in returned soldiers from the Spanish War. The majority of cases were of the tertian type of infection, but in nearly all of these the fever was quotidian, thus indicating a double infection. A surprising feature was the sudden remission. Several types, the gastric, the cerebral, and the dysenteric were observed, the latter being common. Hemoglobinuria was seen in two cases and in nearly all, enlarged spleens, some of them extremely so, were present. The blood changes were striking and a marked oligemia prevailed. The parasites were abundant. Only two of the cases were typhoid and these died too soon to determine whether or not a mixed infection existed. In the other the Widal test was negative. When typhoid cases began to come, it was equally affirmative, and as a differential test between malaria and typhoid it was entirely satisfactory. The treatment was simple: appropriate diet, cold baths for hyperpyrexia, or sometimes guaiacol externally, quinin exclusively for internal use, large doses sometimes given hypodermically, more often twenty to fifty grains in rectal suppository during apyrexia. Its value is greatest in this stage. Mann, in treating such cases again would give it by intravenous injections by the Baccelli method. The paper is illustrated by temperature charts and closes with a statement of the mosquito theory of the etiology of malaria.

37.—Fractures.—McLean reports a case of fracture of the astragalus taken for a sprain and contested by an accident insurance company. The skiagraph revealed the condition and secured payment. Later the same patient suffered an unrecognized fracture of the ulna, followed in three weeks by one of the adjoining radius, also made little of by the patient, who seemed rather insensitive to such injuries. The X ray settled the diagnosis.

39, 40, 41.—Sputa, Pulmonary Sounds, Etc.—The papers of Frank, McVey and Beggs are summaries of the facts as known in regard to their special subjects.

42.—Influenza.—Stewart gives a short paper on influenza. His treatment is, for light cases, simply rest and light diet; for those with severe pains it is symptomatic, phenacetin and caffein for the relief of pain, and quinin in small doses as a tonic. A cough mixture is prescribed for the relief of laryngeal irritation and compound syrup of hypophosphites to maintain the strength. Gastro intestinal disturbances require suitable treatment. During convalescence some preparation of iron is used. The diet should be mild, nutritious, and in gastro-intestinal cases, fluid. Supporting treatment is the main thing. Complications are to be treated on general principles.

43.—Effects of La Grippe.—Plummer briefly mentions some of the after-effects of influenza, including middle-ear inflammation, salpingitis, and recurrent appendicitis. One can not be sure of the safety of the patient until a long time after the attack has passed.

44.—Tubercular Diathesis.—McClintock inquires whether or not there is such a thing as a tubercular diathesis and is inclined to believe that there is, but just what it is and upon what chemic or physiologic conditions it depends, he can not tell. He notices, as having a bearing on this question, the facts of its geographic and its zoölogic distribution, its special location in the body, its apparent antagonism with certain other diathetic conditions, such as gout, leukemia, etc. He thinks that a diathesis that gives some immunity to tuberculosis implies a physiologic opposite condition that favors the disease.

46.—Liver.—Kinsman reviews the physiology of the liver and concludes that its functions are excretory rather than secretory as regards the bile; that in its glycogenic function, it acts on the thermogenesis; it also has the function of destroying poison in the blood, thus protecting the system; it controls the blood crasis, furnishing two principles, one increasing, the other decreasing its coagulability, and as a producer of urea, it largely influences the flow of the urine.

47.—Infant Feeding.—Harper discusses the methods of feeding children who can not nurse. He condemns the various preparations of condensed milk on account of the uncertainty as to their age and quality and believes that cow's milk properly prepared is the best substitute. He quotes Rotch's formulæ for the preparation of cow's milk for infants of different ages. After sterilizing, the milk should be put away in a cool place until used. The bottles, when cleansed, should be placed in the sunlight, which is a powerful germicide. Care should be taken to give food at stated periods, the quantity at each feeding being regulated by the condition of the child. Restlessness, disturbed sleep and no gain in weight indicate underfeeding, while overfeeding is usually shown by vomiting soon after meals. The entire food of the infant for the first eight or nine months should be milk, after that some variation may be cautiously begun. First, barley-water and oatmeal, and toward the close of the year beef juice may be added. During the second year the child's diet should consist of milk, oatmeal, bread, a very little lean meat. Eggs and fruit may be added for variety.

48.—Mother vs. Child.—Bonestell's article is a protest against the statement made in a recent discussion in the California Academy of Medicine in regard to the question of the importance of the life of the mother or the child. It was said by one of the speakers that the fetus has rights paramount to the rights of the mother, a view which he vigorously combats.

49.—Granular Kidney.—West's paper calls attention to the importance of the granular or cirrhotic kidney as a special disease. He does not recognize all the distinctions that have been made between the different types of this affection, nor does he consider the question as settled, whether it is primarily arterial or renal in its pathology. It is, however, in his opinion, a disease *sui generis*, and should not be treated, as it generally is by writers, under different heads of arterial and renal diseases. He discusses its symptoms and pathology.

50.—Practice of Medicine.—Adam's paper is one of those socialistic medical papers that are being written at the present time. He assumes that the average wage for a day's labor in the United States is $1.50, while the average product for the same is $6. His remedy for all the evils he thinks he sees, as far as they concern the medical profession, is the nationalization of the practice of medicine; let the government control the care of the sick and pay the doctor from the public funds.

51.—Quinin in Malarial Hematuria.—McLean reports a case of malarial hematuria which he considers caused by the use of quinin in large doses. The patient died in collapse. He calls attention to the danger of quinin in some instances in acting as an irritant to the kidneys.

53.—Non-Malignant Rectal Ulcers.—Foster discusses the subject of non malignant ulceration of the rectum, including the traumatic ulcers, catarrhal ulceration, tubercular ulceration, whether due to actual tubercle or simply to the malnutrition dependent upon the general disease, lupus exedens, and the simple irritant ulcer of fissure. Many of these types have been cured without surgical operation, but the only local remedy of which he speaks at any length is nitrate of silver application. He uses a solution varying from 2 to 20 grains to the ounce, daily when it can be done, otherwise every two or three days. Rest and protection from irritants, diet, etc., are the important adjuncts to treatment.

58.—Gall-stones.—Washburn, in a general discussion of the subject of gall-stones and their treatment, holds that there is a rational basis for the use of olive-oil in this disorder, but its utility is limited on account of the usual non-tolerance of the large doses required. His experience has led him to make sodium phosphate the basis of continued treatment, giving it in one daily dose of one teaspoonful, continued for weeks, months or years, as the case may demand. It may, in individual cases, be alternated with beef-gall, sodium salicylate, or salol, using each for a time as indicated. Exercise, not carried to fatigue, and a mixed diet without excess of starch or sugars is advised. In the vast majority of cases we have to depend on medical treatment. In only a minority is surgery demanded.

60.—Ozonized Air Therapeutically.—Peavy advocates the use of ozone in the treatment of tuberculosis, administering it by placing the patient on an insulated stool connected with the positive discharge rods of the static electric machine. A spray electrode conducts the electric breeze from the negative end of the machine to the patient's face. He thinks that in this way the blood and tissues are at once made more electropositive and capable of absorbing the oxygen which has been rendered more intensely electromagnetic, thus affording the conditions for rapid and effective oxidation.

61.—Use of Iron.—Gilbert calls for greater discrimination in the use of iron preparations and believes the albuminate in most respects the best form for its administration. He reports his own case, and briefly, three others in which it was of benefit.

64.—Saline Injections in Shock.—Horseley's paper pleads for the more general usage of saline injections as a remedy and prophylactic for surgical shock. He prefers the intravenous over the intracellular method, on account of the quicker absorption and the stimulant effect of the heated solution on the cardiac walls (temperature, he says, should be 110 to 115 degrees, or as hot as the hand can bear). The danger of introduction of air is slight if the canula is introduced with the solution already flowing and withdrawn before it has ceased, and that of intro-

ducing floating particles is avoided by using a small sterile gauze or cotton filter. The technic is described in detail.

65.—Aortic Aneurysm.—Three cases of aortic aneurysm are reported by Hall, in two of which there were autopsies; the other is living. The first case was not diagnosed during life, a complicating, secondary pleuritic effusion masking the symptoms in the one examination.

67.—Cesarean Section.—Byars reports a case where pregnancy was mistaken for ovarian tumor and operated on with good results to both mother and child.

68.—Empyema.—Hill reports two cases of empyema treated by thoracotomy and rib resection, and discusses the diagnosis and treatment of the condition. The former must be made by the use of the exploring needle, and as to the latter, the main point is to evacuate thoroughly and secure drainage. He sums up as follows: "For the diagnosis use the needle; for treatment make incision, or if necessary, incision plus resection; for after-treatment use rubber drainage-tubes and promote lung expansion."

69.—Acute Gonorrhea.—Sass combats the notion that gonorrhea is a simple matter, easily cured in a week or ten days. He quotes Finger, R. W. Taylor, Keyes and others to show that it has normally a duration of six to eight weeks under careful treatment, and that a cure can only be claimed when all traces of pus, cocci or clap shreds have disappeared from the urine. His conclusions are: 1. That gonorrhea is a more serious affection than it is usually considered by the general practitioner and by the laity. 2 That the period of time for a cure in general uncomplicated gonorrhea is from six to eight weeks. 3. The importance of making an examination of the urine for clap shreds before deciding that a case of gonorrhea is cured.

71.—Gout and Rheumatism. Vide JOURNAL, March 18, 1899, p. 597.

72. Orthopedics.—Tracy considers the plaster-of-Paris dressing for fractures the cause of numberless deformities, and that its use should be discontinued. It is in no way fixative, and becomes less so the longer it is in use. Its continued use in hospitals is due to red tape and economy, and the fact that hospitals can stand the production of deformities, while the general practitioner, with whom the plaster dressing has never been a favorite, can not. In the large cities, he says, the practitioner has frequent opportunities to note deformities following plaster treatment, because of the large number of hospital cases.

78.—Inflation and Pneumomassage.—Gibbons views very favorably the use of high-pressure inflation in aural massage. He has been using fifty or sixty pounds pressure in these cases, always being careful to increase it gradually and to stop the moment any vertigo is experienced. He thinks there is no danger of rupturing the tympanic membrane. It would not occur save in an old atrophic membrane, when it could do no harm and might possibly do good. The danger of dislocating the stapes inward through the oval window is *nil*, provided vertigo is avoided. He reports four cases where this method was used to advantage.

79.—Aural Massage.—McConachie believes that in a very large percentage of cases, fully 50 per cent. of rigidity of the ossicular chain, oto-massage by passive motion is of advantage. Its beneficial effects in the after-treatment of acute catarrhal diseases is also marked. In osseous sclerosis it is useless.

80.—Infiltration Anesthesia.—Riesmeyer states that, while at first skeptic as to the value and success of infiltration anesthesia, experiment has brought him to a much more favorable opinion of it. He has tried it now in a number of minor operations, none of them as severe in their character as some that have been reported as managed by this method. Still his experience makes him believe that the method has a much wider range than he had hitherto supposed. He found the anesthesia complete, and in no case did he observe a necrosis, which he had somewhat feared; in fact, primary union of the wounds resulted in every case. The psychic effect, which he had somewhat doubted, is not at all, in his opinion, objectionable.

83.—Salicylate of Sodium in Pneumonia.—Sebring speaks very highly of the use of sodium salicylate in pneumonia. He employs it in the same doses as for attacks of acute rheumatism, from 8 to 10 grains every two hours. He finds also, from Blumer of Albany, that the drug is fatal to pneumococcus in five minutes in a 1 per cent. solution, and suggests that while he does not advance it as a theory or even as a guess, "stranger revelations have occurred in the history of medicine than that at last pneumonia should come to be regarded as an acute pulmonary inflammatory rheumatism, plus an infection of pyogenic bacteria." His observations lead him to the following general conclusions as to the action of salicylate in pneumonia: 1. In the beginning of the attack it quickly quiets the tumultuous pulse. 2. It acts as a sedative to the general nervous excitement that is prevalent through that period; indeed, it seems to act as a hypnotic all through the course of the disease in many instances, as a fair proportion of the patients have slept a major part of the time until recovery had become well established. 3. It almost surely and quickly gives relief from the pleuritic pains. 4. It seems to inhibit the manifestations of malign mental symptoms. Thus far none of the patients have developed the least delirium after beginning to take the drug, except the first, and five cases of drunkard's pneumonia, in which the delirium preceded the disease. 5. The pulse remained full and not overrapid to the end, except in one case; cardiac symptoms due to the disease itself have been unnoticed and symptoms of a "tired heart" do not often occur. 6. After the first few doses of the drug the patient will perspire freely as long as the diseased condition of the lungs persists, but either from this cause, or some other that the author is not cognizant of, the temperature seldom exceeds 103 F. 7. The cases will show a far smaller percentage of complication than is usual. 8. In nineteen out of twenty cases the disease will subside by lysis. 9. The length of time required for recovery is less than the rule with patients that recover under the usual treatment and by lysis. 10. The infected lung tissue progresses to resolution more slowly than it does with the average case, though complete recovery from an attack—that is, return to normal health—is more expeditious. 11. There is a marked diminution in the severity of the disease, all conditions being taken into consideration.

85.—Lung and Heart Reflexes.—Abrams' paper is given to the description of two reflexes, apparently hitherto undescribed, on the part of the lungs and heart. A pulmonary neurosis of dilatation can be produced by irritation of the nasal mucosa, e. g., firmly pressing cotton into both nasal cavities. He thinks this has a value in diagnosis as aiding in discovering regions of imperfect pulmonary expansion which exist. The heart reflex is due to irritation of the skin in the precordial region. It is only manifest by the Roentgen rays. The lung reflex can also be produced by cutaneous irritation, and he thinks this affords a therapeutic suggestion as showing the value of cutaneous stimuli, in bronchopneumonia for example, while he considers that the effectiveness of the Schott treatment in cardiac weakness is practically largely due to this action.

86.—Use of Suprarenal Extract.—Lewis reports three cases of treatment of eye diseases with extract of suprarenal capsule. A 10 per cent. solution was used in connection with cocain. He finds it has been of benefit in operations for dacryocystitis and hypopyon keratitis, diminishing the congestion to a marked degree and permitting more complete anesthesia, but in purulent ophthalmia, in glaucoma, and in deep-seated inflammations, it is not of benefit.

87.—Surgery of Peritonitis.—Gray reports nine cases of general peritonitis treated by free abdominal incision, thorough washing of the abdominal cavity, and subsequent drainage. There were seven recoveries. The two fatal ones were operated on in an almost hopeless stage of the disease. A third fatal case is reported, in which appendicitis was diagnosed and the coincident peritonitis was not recognized in time.

88.—X-ray and Renal Calculus.—Leonard calls attention to the value of the Roentgen ray method of diagnosis in cases of renal calculus, pointing out the necessity of a careful adaptation of the light and exposure to the individual case. The shadows produced vary so slightly in their density that great care must be exercised in reading the negative. All that is essential to an absolutely positive or negative diagnosis are two or three negatives in which the details of the softer structures are clearly defined. When the renal outline can be made out it is certain that no form of calculus can escape detection, showing the possibility not only of detecting calculi that are present, even in their incipiency, but also to demonstrate the absence of all calculi, no matter what their density. When calculi are known to be present it gives their absolute location and number, when no calculi are present it saves the risks of an exploratory nephrotomy. (Vide JOURNAL, March 11, p. 551.)

89.—The Medical Expert.—The medical expert, Shoemaker says, is called into court to elucidate, by his explanations, technic points connected with his profession, which would otherwise be obscure, and might escape comprehension by court and jury. His duty it is to formulate and express an opinion based upon skilled knowledge, on hypothetic cases submitted to him on the witness stand. In reference to facts, he believes with Taylor that a medical witness must bear in mind that he should not allow his testimony to be influenced by the

consequences that may follow from his statement of them, or their probable effect on any case which is under trial. In reference to opinions, their possible influence on the fate of a prisoner should inspire caution in forming them; but when once formed they should be honestly and candidly stated without reference to consequence. The questions put on either side should receive direct answers from the medical witness, and his manner should not be perceptibly different, whether he is replying to a question put by counsel for the prosecution or the defense; the replies should be made in simple language, free from technicality. The first and most glaring fault is to permit himself to form a positive opinion as to the general merits of the case, or as to the guilt of the prisoner, to allow his bias, consciously or unconsciously to influence his testimony. A second fault very similar to the first is the forming of a judgment on very insufficient grounds and expressing positive convictions on doubtful points, thereby possibly lending the weight of his personal authority to support error. A third is want of scientific accuracy in his definitions and explanations to the court, and the use of technic terms without explaining them in simple language. A fourth is the making of rash and unguarded statements in reply to questions which require deliberation in order to be answered properly. A fifth is in attempting to reply to questions which have not been properly framed, or which are improper in themselves and should not have been asked at all.

90.—Cerebral Hemorrhage and Glycosuria.—Gradwold observed temporary glycosuria in a case comatose from cerebral hemorrhage; the findings were confirmed by a subsequent blood and urine examination. The urine withdrawn post-mortem showed no trace of sugar. The appearance of sugar in the urine in this case was considered due to the pressure excited by blood-clot on "Bernard diabetic center" on the floor of the fourth ventricle. The post-mortem findings confirmed the supposition.

91.—Anthrax and Tanneries.—In tracing out the source of infection in twelve fatal cases of anthrax in man, occurring at three different points in Pennsylvania, it was found that, without exception, the victims had been employed by tanneries, each of which had received a part of a cargo of hides imported from China, a large portion of these hides believed to come from cattle that have died of the disease. A study of the cases show that in every instance the infection occurred in those handling the hides in the dry state, probably due to the fact that a traumatism would be more likely to result from the hides in the hard, stiff state, early in the process of tanning, than when the hides became soft and pliable. Ravenel made a number of tests to demonstrate whether the tanning process had any effect on the spores of anthrax. Submitting the spores to the action of the various tanning fluids, for a period of one hundred and eighty days, he concludes that the tanning process, as ordinarily carried out, does not in any way protect operatives or leather workers from infection by the anthrax germ; the virulence and viability are unaffected, though possibly the combination of the tannin with the albumin in the hide may so "fix" the spores that they are less liable to become detached from the hide. He considers that for the proper protection of our operatives in tanneries, and our cattle industry, it will be necessary to devise an economic and simple method of thoroughly disinfecting hides without injury; proper regulation of hide importation; a more reliable method of obtaining reports regarding animal diseases from countries which export hides; as well as a process of tanning which will in itself destroy the spores of the anthrax bacillus.

94.—Syphilis of Liver.—Adami discusses this subject, especially in the congenital form of the disease. The manifestations in the infant's liver are, he holds, to be summed up as follows: 1. Syphilis may lead either to granulomatous deposits in the organs, or to intestinal fibroid changes. 2. The specific granulomata may be present either in the form of minute multiple miliary gummata, or of isolated larger gummata, such as in general are regarded as being of tertiary nature. 3. It is not possible to regard the one form as secondary, the other as tertiary, for either may exist with cutaneous disturbances of the secondary type. 4. By analogy, the intestinal fibroid change, so common in infantile syphilis, would appear in the main to be a degeneration and necrosis of the hepatic parenchyma, produced by the action of the toxins of the syphilitic virus on the individual liver cells. In part it is developed in direct association with the development of miliary gummata. The infant's liver seems to be more susceptible and less resistive to the toxic agency and more prone to degenerate. While the changes seen in adult and infantile livers are etiologically and anatomically the same, they present differences due in part to their reactive powers of the hepatic tissue at the different periods of life.

97.—Syphilitic Treatment.—Lapowski discusses the methods of treatment of syphilis with mercury. He holds rather to the view that this agent circulates in the body in the form of metallic mercury. He objects to the administration by the mouth and advises its use by inunction. The paper is to be continued.

98.—Treatment of Gall-stones.—To relieve the pain is the first indication, morphin or atropin hypodermically, and chloroform, in the intense paroxysms, will be of special service. Hot applications over the abdomen and hot-water bottles at the feet are advised to promote circulation. Considerable relief may be experienced by draughts of hot water with a little bicarbonate of soda. After the pain is over, if constipation exists, a dose of calomel followed in a few hours by a sulphate or phosphate of sodium may be given. When a person is known to have gall-stones, the diet should exclude fats, sauces, gravies, fried articles, pastry and whatsoever is liable to cause colicky attacks. Meats, fish, vegetables, fruits and bread may be allowed, provided there are no contraindications. Water should be taken freely. Vichy water, a glassful in the morning and an hour before luncheon and dinner, is also advised, and Carlsbad salts for their laxative effects. As for drugs that are supposed to act upon the gall stones, he thinks sweet oil may be of some use and will aid in the expulsion of stones even if it does not dissolve them. Sodium salicylate stimulates the flow of the bile and is easily administered. Intestinal antiseptics may be required, such as salol, salophen and naphthalin, and if the bile-ducts are completely occluded, bile pills, coated with salol, given two hours before meals, will prevent putrefactive changes in the intestines. Chlorate of sodium is also used for the same purpose. Among other drugs mentioned are the succinate of sodium in 5-grain doses, t. i. d., and succinate of iron peroxid. Gentle massage of the abdomen in the region of the gall-bladder may have a use in the expulsion of small stones, but care should be taken that there is no impaction of large calculi. Exercise to strengthen the abdominal muscles and increase the action of the diaphragm, fresh air and regulated diet are also beneficial.

100. Chronic Nephritis.—Edebohls calls attention to chronic nephritis due apparently to movable kidney, and recommends nephropexy. He reports 6 cases treated in which all symptoms of the nephritis disappeared in 4 after the operation, and presumably in consequence of it. In 2 cases it still persisted. In one of these the kidney again became movable, and in the other also, but there is no statement in the latter case as to the existence of nephritis.

101.—Hypertrophy of Prostate.—Kreissl describes and recommends Bottini's operation for prostatic hypertrophy. He thinks that it has conquered a well-deserved place, and he considers it the mildest surgical operation for the condition. If it fails, there will always be a chance for other operations. He reports five cases.

FOREIGN.

British Medical Journal, April 15.

Antenatal Therapeutics. J. W. BALLANTYNE.—The treatment of antenatal diseases and defects is discussed, and their management after birth, where the physician, though his results are not as brilliant as those of the surgeon, still has an important function. He mentions in this connection the manifestations of congenital syphilis and of cretinism. Under the head of intranatal therapeutics, he discusses the management of labor in reference to the welfare of the child, and under that of antenatal, the management of the general diseases of the mother during pregnancy, her protection from maladies which might be dangerous to the infant, and the questions of occupation and habits. In conclusion, he speaks of the question of the control of marriage to prevent defective progeny.

Bacteriologic Examination of Fauces in Scarlet Fever, to Prevent Post-Scarlatinal Diphtheria. G. C. GARRATT and J. W. WASHBOURN.—The authors report a record of the examination of all the cases of scarlet fever within a certain period and of the various germs found in the throat. They conclude that post-scarlatinal diphtheria in hospitals is due to the introduction of unrecognized cases of diphtheria into the scarlet-fever wards, and this can be easily prevented by systematic bacteriologic examination of all cases on admission, and isolation of all those in which diphtheria bacilli are found.

Acute Tetanus Treated by Intracerebral Injections of Antitoxin. WM. F. GIBB.—A case of acute tetanus appearing seventeen days after the accident is reported, treated by intracerebral injections of antitoxin with a good recovery in about five weeks. The treatment of tetanus, he remarks, is based on the following principles: 1. Maintenance of the patient's strength. 2. Control of the painful spasms by chloral, as far as possible. 3. Restrain the development of the toxin of the blood by hypo-

dermic injections of antitoxin; and 4, prevent the toxin from affecting the nerve-cells in the higher centers by intracerebral injections of antitoxin. In cases where the presence of bacilli is still suspected, local operation may be necessary. In the case recorded it was presumed that they had been removed by the amputation a week before the first symptom of tetanus occurred.

Cure of Morphin, Chloral and Cocain Habits by Sodium Bromid. NEIL MACLEOD.—Several more cases, in addition to those formerly reported by the author, are here cited, in which, by rather heroic use of the bromids, he treated morphin, chloral and cocain habits. In one case of morphin and cocain habit, the patient died after having taken 36 drams of the drug in a week. His general conclusions, however, are strongly in favor of this method. He gives it in doses of as high as 2 drams in solution every two hours for the first two days, and 1 dram during the third day. Morphin may be given the first day in the habitual dose, halved the second, and in a minimum dose the third day; cocain the same. Chloral may be cut off at once.

Oxyuris Vermicularis in Children. GEORGE F. STILL.—The author concludes: that the appendix is a very common habitat of this parasite in childhood, and that in some cases it serves as a breeding place for them; that their presence there may cause a catarrhal condition and this swollen catarrhal state due to threadworms is associated with pains in the right iliac fossa, simulating ordinary appendicitis; that in the treatment of threadworms large injections must be used and in view of the difficulty of dislodging them from the appendix, and their possible presence in the small intestines, treatment by drugs, by the mouth, should be combined with the injections.

Neurotic Ulcers of Mouth. W. KNOWSLEY SIBLEY.—Three cases of neurotic ulcers in the mouth are here reported, produced, the author thinks, by a distinct trophoneurosis quite different from the common catarrhal or dyspeptic ulcers. In all three of his cases, mental trouble or worry seemed to be the cause. No medicinal treatment was effective, though possibly some nerve tonics did good indirectly. Local application of tincture of iodin, and cocain, borax, carbolic or peroxid of hydrogen mouth washes were used when pain was severe. The only curative treatment, he believes, is the removal from home and its accompanying worries, and mountain rather than sea air is advisable.

Resistence of Rats to Diphtheria Toxin. LOUIS COBBETT.—From his experiments with diphtheria toxin on rats, the writer concludes as follows: 1. The white or black and white rat of 100 grams weight is only relatively insusceptible to the action of the products of the diphtheria bacillus, and succumbs to the subcutaneous injection of filtered cultures, in quantities which are, weight for weight, from 1500 to 1800 times as great as those which suffice to kill guinea pigs of 250 grams. 2. Its tissues are but little affected locally by the injection of large quantities of filtrate, and have not been observed to suffer necrosis. 3. The serum of these refractory animals in doses of 1 c.c. does not protect guinea-pigs against quantities of filrate which are little larger than the minimal fatal.

Lancet, April 15.

Decrease of Phthisis in Great Britain. HUGH BEEVOR.—Statistics are given showing the decrease of consumption within the last forty or fifty years in Great Britain, illustrated by curves, maps and tables. The discussion is exceedingly thorough and shows not only the actual facts as to tuberculosis, but its relations with other disorders, to sex, occupation, food-supply, ventilation, urban and rural residence, etc. He brings out some interesting facts, such as, for instance, the general prevalence of phthisis in North Wales, which he accounts for by some peculiarities of diet, overcrowding, etc. He thinks that we may safely infer that the declension of phthisis, general as it has been, will still continue. The habits of the British population as to food and clothing especially have greatly improved, as shown by his statistics.

Malta Fever Treated With Antitoxin. E. D. FITZGERALD AND J. H. EWART.—A case treated with antitoxin furnished by Major Semple, who had also been using it at Netley with benefit, is reported. The effect on the fever is very marked and beneficial, the only very decided inconvenience being urticarial trouble which followed its use.

Stomach Contents in Gastric Crises of Tabes. CARSTAIRS C. DOUGLAS.—From the examination of the stomach contents in the gastric crises of locomotor ataxia, he concludes that there is no indication of hyperacidity or hyperchlorhydria, and apart from the presence of blood in vomiting, no indication whatever of any serious gastric lesions. Digestion was perfectly normal between the crises. He suggests that the blood vomited in the crises is from engorged or varicose veins near the cardiac end of the esophagus.

Practitioner (London), April.

Statistics of Cancer. ARTHUR NEWSHOLME.—The statistics of cancer in Great Britain are reviewed and the author concludes that the increase is rather apparent than real. The frequency of the disease, however, causing 6 or 7 per cent. of the total mortality, is enough to make it a question of very serious importance.

Frequency and Nature of Cancer. ROSWELL PARK.—This paper has in substance already been published in this country (vide JOURNAL, April 8, p. 779, ¶ 15).

Geography of Cancer. ALFRED HAVILAND.—The author goes over the medical geography of cancer in England and Wales, and finds that the results obtained by him thirty years ago are still confirmed by examinations more recently made. A curious result is that cancer has its greatest mortality in regions liable to floods and underlaid with a clayey soil, while the lowest death-rates are on the limestone formations.

Cancer and Cancer Houses. D'ARCY POWER.—This paper is on the occurrence of cancer in certain regions and houses, thus affording strong evidence of its infectiousness. It is possible even to say whether or not it is advisable for a patient with a known tendency to malignant disease to remain in this or that locality. As to the actual cause, however, he leaves it still in abeyance.

Etiology and Histology of Cancer. H. G. PLIMMER.—The history of the parasitic theory of malignant tumors is reviewed, and a parasite described in detail and illustrated. His conclusions are as follows: 1. In cancers there are certain intracellular bodies (also rarely found outside the cells) which are neither parts of the cell structure, nor any known degenerative change, and which are only found in cancer; and they are only found at the periphery of the growing parts of the cancer, and not in the degenerated parts, and have distinctive microchemic reactions. 2. There are certain cancers, which occur rarely, in which these bodies are present in enormous numbers. (From the rarity of these cases, as numerically mentioned above, and their comparatively acute course, we may be tempted to assume that they are due to the same cause as ordinary cancer; but there is really no more difference between them, as stated above, than between acute and chronic tubercle.) 3. By the use of appropriate means these bodies can be isolated and cultivated outside the body. 4. These cultures, when introduced into certain animals, can cause death, with the production of tumors, so far of endothelial origin (with the one exception of the cornea, the epithelium of which, when inoculated with these organisms, proliferates considerably, both on the surface and deeply in various directions between the fibrous layers of the cornea); and pure cultures, which, if inoculated into suitable animals, will again produce similar growths, can be made from these tumors.

Occurrence of Cancer. J. M. FADYEAN.—This writer describes cancer in the lower animals, where it seems to be by no means unknown.

Surgical Relief of Cancer. WM. WATSON CHEYNE—Cheyne, whose paper on cancer of the breast has been already noticed (vide JOURNAL, April 15, p. 832), reviews the whole subject of cancer surgery, and shows that we are not without recourse in many cases of this disease, and that great advance has taken place both as regards the safety of operation and the freedom from recurrence. An early operation in most cases will greatly improve the patient's chances of future life and happiness.

Treatment of Inoperable Cancer. WILLIAM B. COLEY.—The treatment of cancer which is past operation, or where operation is impracticable, is discussed, and he reports all the principal methods which have been used for this purpose. The paper is on the whole rather a hopeful one, though the chances of cure of cancer other than by operation can not be said to be the best.

Deutsche Medicinische Wochenschrift.

Ultimate Results of Operations for Ectopia Vesicæ. SONNENBURG.—The ureters were implanted in the intestines in fourteen cases, with two deaths from subsequent ascending infection, which is the drawback to this method. Seven cases operated on by detaching the musculi recti and bringing them together, failed in three, with a persisting fistula in one; three have resulted satisfactorily, although all are incontinent. The Trendelenburg method has been applied in six cases; two have fistulæ and one is cured, but incontinent. Plastic operations have seldom secured continence, and incrustations and concretions have produced such pain that the new conditions could not be endured. Sonnenburg's method, removing the bladder and implanting the ureters in the groove in the penis, has been performed seven times; no deaths. He recently presented three patients thus operated on, to the surgical association, dating from sixteen, and two years or a few months previous. The results are highly satisfactory, although the continence, good

at first, diminished in time. A receptacle for the urine is worn night and day, and fits over the ends of the ureters and holds the urine perfectly, with no pain nor inconvenience at any time.

Wiener Klinische Rundschau, April 9.

Vessel Death. J. PAL.—This is a study of the vasomotor paralysis noted in phosphorus intoxication and also encountered, with cerebral symptoms, in some cases of infectious diseases, nephritis, pseudoleukemia, etc., with the heart found nearly or entirely empty at the necropsy. It does not always accompany phosphorus intoxication, but the usual final phenomena are indications of pronounced weakness of the heart, with frequently nothing physical to be found to correspond. In some cases the heart decreases in size, especially in the transverse diameter, as death approaches.

Wiener Klinische Wochenschrift, March 30.

Spontaneous Gangrene in Childhood. ZUPPINGER.—Description of a case of severe spontaneous, multiple gangrene on the back and lower limbs of a hitherto healthy child after croupous pneumonia, which commenced a few weeks after convalescence from measles. He reviews the literature on the subject and emphasizes the importance of stimulating the heart's action in case of feeble circulation, without waiting for serious symptoms of vascular obstruction.

Significance of the Serum Reaction Described as "Thread-Formation." M. PFAUNDLER.—The writer was the first to describe the peculiar network of threads which develops after a certain time in certain mixtures or cultures with diluted serum. The rod shaped bacteria seem to stretch out into delicate, endless threads, which become interwoven and spread over a large portion of the drops examined. He concludes from further research that, while agglutination is the expression of a specific modification of the serum, thread-formation, on the other hand, is the expression of a specific modification of the serum, plus a specific modification of the microbe in the infected organism in the sense of individualization, or adaptation to the individual.

Journal de Medicine de Paris, April 9.

Inglis Pearson's Method of Treating Prolapsus Uteri.—Having noticed that an attack of pelvi-cellulitis is frequently followed by the cure of a pre-existing prolapsus, Inglis Pearson accomplishes the same results by artificially producing adhesions and contractions such as follow the cellulitis. He has now a record of eighteen rebellious cases completely cured by this method, which is warmly endorsed in a London letter in this Paris journal. Pearson injects 1.5 grams of the following solution: quinin sulphate, 2 grams; sulphuric acid, q. s. to dissolve, and aq. dest., 10 grams, into each broad ligament, after chloroform, ether or cocainization of the vagina, the patient in the lithotrity position. The syringe terminates in a fine platinum needle 3 cm. long, connected by a metal tube 10 cm. in length. It is inserted through the lateral walls of the vagina about 2.5 cm. from the top of the lateral cul-de-sac on a horizontal plane passing through the external orifice of the cervix. A stem pessary is inserted for four or five days and the patient remains in bed a month, not resuming her usual life until after the second month.

Centralblatt f. Chirurgie (Leipsic), April 1.

Etiology of Congenital Dislocation of Hip and the Paci-Lorenz Method of Treatment. G. DREHMANN.—This communication from Mikulicz' clinic is based on 104 cases treated, and emphasizes the importance of distinguishing between luxations occurring early and those occurring late in the fetal life, as the prognosis of the former with its stunted parts is much less favorable. The explanation that the foot gets caught in the axilla is satisfactory for most cases, and heredity can occasionally be incriminated, but it is evident that the etiology is not identic for all. Mikulicz' apparatus requires great attention on the part of the parents, and for this reason was only applied to forty-nine children, all under 2 years of age. A number of cases were completely cured, even when the femoral head was only held above the acetabulum, but others relapsed after two or three years. The ultimate results of operative reposition—twenty-five cases—were satisfactory on the whole. In the children under 10, the joints are all freely movable, but with a tendency to contraction, necessitating long orthopedic after-treatment. In older children much contraction is always accompanied by more or less stiffness, which, however, does not detract materially from the cosmetic results. Three unilateral cases—girls of 8, 11 and 14—were successfully treated with braces, raised soles and gymnastics alone. The writer earnestly advocates the omission of the preliminary extension in Lorenz' method of manipulative reposition. In a couple of cases treated, one side with and the other without extension, the head remained firmly in its socket on the latter side, while on the other there was a constant tendency to reluxation, as was observed in most of the cases in which extension was employed. If a radiograph showed that the head projected above the rim the reposition was done over again. In several cases the repetition of the reposition several times finally accomplished a complete cure. The head has remained in its socket in nineteen cases—eight without a bandage for from two years to three months. Radiographs show that the acetabulum has developed in some cases; in one, bone stalactites have grown from the upper rim, forming a solid frame for the head. (Vide JOURNAL, xxxi, p. 451.)

Deutsche Medicinische Wochenschrift (Berlin), April 6.

Celluloid Thread, a New Material for Sutures and Ligatures. PAGENSTECHER.—The best English linen thread is sterilized and grease extracted by boiling half an hour in 1 per cent. sodium solution, rinsed in boiling water and dried rapidly in sterile cloths in hot air. The thread is then impregnated with a solution of celluloid and smoothed, when it is ready for use after being sterilized with the dressings, in steam or hot air as required. The thread acquires by this process strength and stiffness, the surface is smooth and shiny, resembling silkworm gut. It is not affected by heat, moisture, the secretions of the wound or antiseptics. The thread never snarls; the knots hold firm; it is easily manipulated, and the needles are readily threaded. Pagenstecher has been using this celluloid thread, in five sizes, for three years and has abandoned silk entirely, and catgut for nearly all purposes. The operative results are excellent in every respect and the saving in expenses has been considerable. It has been patented in Germany.

Munchener Medicinische Wochenschrift, March 21.

Radical Operation of Free Inguinal Hernia by Suturing the Internal Abdominal Ring. ASSAKY.—Ten cases are reported successfully operated on through a 6 to 7 cm. vertical incision in the abdomen, the lower end about 1 cm. from the center of the internal abdominal ring, after reduction of the hernia, in the Trendelenburg position. The ring is then closed with two or three stitches through the abdominal incision, with a specially curved needle bent at a right angle to its stem. The results to date have been most excellent.

Globulicidal Action of the Animal Organism. VON DUNGERN.—The writer attributes an important part to the intracellular destruction of bacteria in infections, which, he states, surpasses the extracellular, and is especially important after the latter has failed. He concludes from a long series of experiments with guinea-pigs, pigeons and fowls, that the analogy between the globulicidal and the bactericidal processes in the organism is complete. We can therefore assume that the destruction of the bacteria in the specifically immunized animal is an identic process with the dissolving of the erythrocytes in the organism previously specifically treated. Specific bactericidal immunity is therefore nothing but a special form of antitoxic immunity. The only difference is that the substance, upon the destruction of which the antibodies are formed, need not be considered particularly toxic, but merely a substance indispensable to the life of the bacterial cell.

Rights of Handsome Plaintiff in Personal Injury Case.—The novel point was recently argued before the supreme court of Nebraska, in the case of the Omaha Street Railway Company, vs. Emminger, that, while there would ordinarily be no error in the plaintiff in a personal injury case exhibiting to the jury a limb injured, as the one in this case had been, by the wheel of a street-car running over same, between the knee and the ankle, breaking the bones thereof, nevertheless it was improper in this instance, for the reason that the party suing, a female, was young, handsome and attractive, and consequently the sympathies of a jury composed of men must have been unduly excited in her behalf. But the supreme court does not agree to that. It says that the motto on the coat of arms of the State is, "Equality before the law." And it holds that the plaintiff (in the court below) having suffered injuries for which she sought compensation in damages, was entitled in sustaining her claim, to resort to the same proofs that she might have resorted to if she had been aged, ugly and repulsive. Another point that the court makes, of perhaps more general importance, is that when a party is liable for services rendered by a surgeon, he or she may recover the reasonable value of such services, where they were necessitated by the injuries for the compensation of which action has been brought, notwithstanding the fact that such surgeon has not been actually compensated. It also holds here that where medical experts had testified to results which would, in their opinion, follow from personal injuries, and with reference to other results which they believed might follow, it was not erroneous to instruct the jury that the party injured was entitled to recover for such injuries as the jury believed from the evidence she might labor under in the future as the result of her injuries.

Societies.

COMING MEETINGS.

American Association of Genito-Urinary Surgeons, Niagara Falls, N. Y., May 25.
American Climatological Association, New York City, May 9.
American Gastro-Enterological Association, Washington, D. C., May 2.
American Laryngological Association, Chicago, May 22-24.
American Medico-Psychological Association, New York City, May 23.
American Orthopedic Association, New York City, May 16.
Arkansas Medical Society, Little Rock, May.
Association of American Physicians, Washington, D. C., May 24.
Connecticut Medical Society, Hartford, May 24.
Galva District Medical Society, Galva, Ill., May 4.
Illinois State Medical Society, Cairo, May 16-18.
International Association of Railway Surgeons, Richmond, Va., May.
Kansas Medical Society, Topeka, May.
Kentucky State Medical Society, Louisville, May 16.
Michigan State Medical Society, Kalamazoo, May 4.
Montana, Medical Association of, Butte, May 24.
Nebraska State Medical Society, Lincoln, May 9.
New Hampshire Medical Society, Concord, May 25-26.
New Mexico Medical Society, Albuquerque, May.
North Carolina, Medical Society of State of, Asheville, May.
North Dakota State Medical Society, Fargo, May 24-25.
Ohio State Medical Society, Springfield, May 10-12.
Oklahoma Territory Medical Society, Oklahoma City, May 19.
Pennsylvania, Medical Society of State of, Johnstown, May 16.
Washington State Medical Society, Tacoma, May.
West Virginia, Medical Society of State of, Weston, May.
Wisconsin State Medical Society, Oshkosh, May 3.

Washington (D. C.) Society of Ophthalmologists and Otologists.—Dr. Frank Hyatt read a paper on "Chronic Simple Glaucoma, Treated without Operation," at the recent meeting of this society. The chief features of the case were the peculiar fields of vision and the improvement in sight under the treatment with eserin.

Northampton County Medical Society.—The annual meeting of this society was held in Easton, Pa., April 21. The following officers were elected: President, Charles McIntyre; vice-presidents, D. H. Keller of Bangor and J. O. Berlim of Bath; secretary, F. H. Irvine of Bethlehem; board of censors, A. A. Seem of Bangor, S. S. Apple of Easton, and Dr. Lauer of Bethlehem. The fiftieth anniversary will be held in Easton on June 13.

Hartford County Medical Association.—At the 107th annual session of this association, at Hartford, Conn., April 19, the following were elected officers for the ensuing year: President, Joseph A. Coogan; vice-president, William T. Bacon; clerk, Wilton E. Dickerman; Fellows, 1899, Charles C. Beach, Walter G. Murphy, Frederick T. Simpson, George T. Finch, C. M. Wooster; censors, Samuel W. Irving, Joseph B. Hall, Howard O. Allen; country reporter, Edward K. Root.

Seventh International Congress for Prevention of Abuse of Alcohol.—This congress opened auspiciously at Paris the first week in April, with a thousand members enrolled, half of whom were from other countries. It was emphasized in the early addresses that the aim of antialcohol associations should be more preventive than curative, and especially directed to warn and enlighten youth. The "university youth" should be the first to be enrolled in the antialcohol crusade. The municipality tendered the congress a reception one afternoon at the Hotel de Ville, when milk, tea, coffee and even champagne were liberally served. Total abstinence finds no favor in a wine-producing country like France.

First Austrian Congress of Balneology.—Among the communications presented at this congress, held at Vienna in March, we note Strasser's statements that hydrotherapeutic measures which augment the heat of the body increase the acidity of the blood, while cold increase the alkalinity. With hot baths, the destruction is more active than oxidation, and hence acidity. With cold baths, the oxidation surpasses the destruction and alkalinity results. He added that with the ebb and flow which hydrotherapeutics are able to produce at will in the body, every organ can be influenced, we can accelerate or diminish normal and pathologic processes and influence even the slightest, most secret vital processes in the interior of the working cell.

Detroit Medical and Library Association.—At the regular meeting held April 17, Dr. W. S. Anderson read a paper entitled "Study of Some Conditions that Lead to Fibroid Changes." Referring to the changes that take place in the human organism from infancy to old age, viz.: a constant increase of connective tissue as the person grows older, by degrees producing loss of elasticity, with constantly increasing firmness and rigidity with, in old age, the accompanying weaknesses and organic disorders. In answer to the query: "Is this a pathologic or a physiologic process?" When these changes take place prematurely and rapidly as a result of disease we can not call them physiologic. Physiologic old age, is a natural process—diminution of intellect, ambition, energy, finally merging into unconsciousness and death—the true euthanasia. To say that a man is as old as his arteries is to declare that the change in the arteries is a type of the change which is in progress in all the organs and tissues of the body. The loss of resiliency of the arterial coats and the tendency to failure of the heart makes the beginning of senile atrophy. Thus we can more readily understand symptoms from which old people complain. The fibroid changes are always accompanied sooner or later by circulatory disturbances with various local symptoms according to the organ affected, which is, as a rule, the weakest. It is a common error for practitioners to overlook the fact that in the aged the whole organism must be taken into consideration when one organ alone shows symptoms of disease. In diseases of the lungs, liver, and kidney, respectively, the one point should not be forgotten that the fibrosis of the organ involved is not the only pathologic condition existing, so that treatment should be directed to the general condition. As an illustration the author related the case of a woman, who had always been healthy until her 70th year, when she took cold and developed a cough which persisted in spite of the administration of expectorants. Coming under the author's observation she was placed upon digitalis and nux vomica for their general systemic tonic properties. The result was all that could be desired. As to premature senility the Doctor said the etiology is obscure. Heredity seems to have a marked influence. Syphilis, rheumatism, gout, hard work in damp and unhealthy localities are etiologic factors. The treatment, he divides into two groups: those measures which will prevent or retard further development of fibroid tissue; and symptomatic treatment. Under the former we have the regulation of the manner of living, hygiene, proper diet, exercise suited to the individual case, or, in some cases, rest. Potassium iodid is a drug which retards fibroid changes and should be given in 5 to 10 grain doses three times a day for a long time. Arsenic and phosphorus are also valuable. Digitalis and nux vomica strengthen the heart and aid in bringing about a better condition. For the symptomatic treatment remedies must be applied to meet the requirements of the case and this should be carried out on general principles.

College of Physicians of Philadelphia.

Section on Otology and Laryngology, March 15, 1899.

OBSERVATIONS ON LARYNGEAL PARALYSIS, DANGEROUS TO LIFE, OCCURRING IN THE COURSE OF TYPHOID FEVER.

Dr. ALEXANDER W. MACCOY read a paper on this subject and said: Laryngeal complications arising in many infectious diseases, ulcerations, perichondritis, edema, etc., have been studied and are well known; but conditions of paralysis of the intrinsic muscles are not so familiar. They are often unrecognized and may be mistaken for other affections, such as croup and spasmodic laryngeal affections. Paralysis of either adductors or abductors may exist; the former only affects the power of phonation, whereas the latter affects respiration and is dangerous to life. Prompt recognition and relief is necessary in the latter condition.

He reported three cases where abductor paralysis due to paralysis of the posterior crico-arytenoid muscles had occurred in the course of typhoid fever. The first case, a young man, had been ill for two months, and was much emaciated and debilitated, when he was suddenly seized with a suffocative attack, simulating croup. Laryngoscopic examination showed complete paralysis, the bands remaining fixed in the median line. An adult intubation-tube was introduced and immediate relief obtained. The second case was one which only came under observation a few months previously, had a similar attack, and was still wearing the tube, which had been introduced after tracheotomy had been performed to save him from impending suffocation, due to abductor paralysis, as in the first case. The third case was a fatal one, in which intubation had been urged but was not accepted. In Dr. MacCoy's opinion the life of the third patient might have been saved had intubation been promptly performed, as in the first case.

The condition of double, posterior crico-arytenoid paralysis is such a grave one that, when the characteristic symptoms are observed, they call for examination by a laryngeal expert and early adoption of measures for relief, the best of which is intubation.

Dr. HOBART A. HARE had, within the last few months, seen two cases reported, and was inclined to ascribe the paralysis to a local and not to a central cause. As regards the prognosis, he classed it with the peripheral neuritis following diphtheria, as being generally favorable. The only other possible explanation would be its dependence upon a cortical lesion of that part of the cortex governing the movement of the adductor muscles. This view, however, is excluded by the absence of all other symptoms and the prompt and complete recovery of the patient. As regards the occurrence of perichondritis, it is unnecessary to state before this section that if the larynx were more frequently examined during the course of typhoid fever we should find more cases of laryngeal inflammation. Only last week, Dr. Reisman reported to the Pathological Society, a case with pharyngeal lesion accompanied by lesion of the larynx. If only looked for they would be found, as they are very common. In fact, a recent writer has said that we may assume that in cases of typhoid fever there is some affection of the larynx; if not due directly to the typhoid poison, at least it is caused by mixed infection.

Dr. E. L. VANSANT—The complication of perichondritis in these cases is important, since it might interfere with the successful treatment by intubation; the pressure of the tube upon the inflamed cartilage might lead to necrosis and set up septic processes.

Dr. KYLE—As regards the pathology, it is known that typhoid fever causes hyaline degeneration of muscle-tissue, and areas of hyaline degeneration have been found in the laryngeal muscles; these even may become converted into small abscesses, which will discharge, if near the surface, but if they lie deeper may produce more permanent lesions.

Dr. RANDALL had no doubt that many cases of sudden death attributed to heart failure, in typhoid fever, as in other conditions, were in reality cases of unrecognized laryngeal paralysis.

Dr. MACCOY said his paper referred only to cases of double abductor paralysis arising in the course of acute infectious disease. The chronic cases of abductor paralysis were well known and were often remarkable for their duration, several having come under his observation which had continued for more than twenty years. He had not recommended the intubation-tube in the class of cases to which Dr. Vansant had alluded, but only in cases where there was no visible inflammatory laryngeal lesion. In a discussion some years since, at a meeting of the American Laryngological Association, the condition of double abductor paralysis was considered ideal for the employment of intubation-tubes. In such instances the patient is not in jeopardy from operation, as he is apt to be where tracheotomy is performed. The present view of neuritis from infection is generally accepted. It is now the consensus of opinion that there is no cortical central lesion in the class of cases mentioned in the paper; indeed, no definite central lesion has yet been determined for chronic cases of abductor paralysis. Dr. Kyles' explanation gives us a definite pathologic cause for the paralysis.

AURAL MASSAGE.

Dr. RALPH W. SEISS presented a paper on this new therapeutic procedure (vide JOURNAL, April 22, p. 895, p. 61.)

CHRONIC EMPYEMA OF ACCESSORY NASAL CAVITIES.

Dr. GEO. C. STOUT reported seven cases. The first was a farmer who had a foul-smelling discharge from the left side of his nose, for fifteen years. He had also a recurring abscess on the left upper eyelid. He was etherized and the entrance into the frontal sinus opened freely with a gouge and washed out with saturated solution of boric acid and packed with gauze. The antrum of Highmore was opened through the canine fossa and similarly treated. The anterior end of the middle turbinate was then removed with the cold wire snare in order to establish free communication between the frontal sinus and the nasal fossa. The cavities were washed out and repacked at intervals of from two to five days, then for five weeks, then silver tubes were introduced to keep the openings from closing too soon. Three years after the operation there had been no recurrence of any of the symptoms, although, as was discovered by chance, the patient continued to wear the silver tubes for many months after their usefulness had ended.

Another case was a woman who had had a discharge from the right nares for twenty years. A number of myxomatous polypi were found and removed. The antrum was aspirated through the inferior meatus, by inserting a silver tube, and irrigated as in the first case. The bulbous extremity of the middle turbinate was snared off and, caries being discovered, the region thoroughly curetted. An opening was thus made communicating with the frontal sinus and the antrum.

The third case was one of paracentesis of the frontal sinus.

In the fourth case, one of empyema of the posterior ethmoid cells, after cleansing aseptically, Dr. Cleveland removed the posterior extremity of the middle turbinate with a cold wire snare. The case made a rapid recovery.

The next case was one of antral empyema, for which paracentesis was performed, followed by operation through the canine fossa, with slow recovery. The delay was attributed to the presence of frontal sinusitis, which had not been recognized.

In the sixth case, one of frontal and antral empyema, which was cured by the removal of the anterior extremity of the middle turbinate, in the portion removed was found a bony walled cyst, nearly an inch long by three-fourths of an inch high and over one-half inch thick, filled with foul pus.

The last case was one showing the ravages of syphilis; the frontal sinuses, the antra, the sphenoidal sinuses, the two nares and the vault of the pharynx formed one large cavity with small fragmentary partitions. This is cited merely as an additional case in which frontal and antral disease were coincident.

Cases of antrum empyema may be obstinate or incurable because of co existing frontal sinusitis. Suppuration in the accessory nasal cavities is one of the results of chronic hypertrophic conditions of the nasal mucous membrane, which close the infundibulum, ostium maxillæ, and other openings. Nasal polypi may be a cause or an effect of empyema, which may also follow the exanthemata (including la grippe) or traumatism. Surgical measures, by paracentesis or external opening, are necessary to afford relief. Free drainage and irrigation with antiseptic solutions are essential.

Denver and Arapahoe Medical Society.

Regular Meeting, April 11, 1899.

DISSECTING ANEURYSM OF ASCENDING AORTA.

Dr. W. E. SHOTWELL read a paper on this condition in a male, aged 66 years, who on January 27, while engaged in tuning a piano, was suddenly seized with intense pain in the left ear and radiating down the spine. He was placed on a sofa, and, according to the statement of the lady of the house, rolled off on the floor in what she thought was a convulsion. He rolled about on the floor, suffering from most agonizing pain, beginning at the left ear and radiating down to about the fifth dorsal vertebra, which was exceedingly tender. His pulse was weak and rapid, face cyanosed, respiration labored. A hypodermic injection of strychnin and digitalin was administered. The respiration, however, ceased, the pulse was lost at the wrist, and consciousness entirely gone. Reaction soon set in and he became conscious, but this lasted only a few moments and he had another attack of much shorter duration and milder character. He then expressed himself as feeling well and free from pain, while the cyanosis and dyspnea disappeared and pulse improved. The heart sounds were muffled and distant. The cardiac impulse was entirely lost. Upon attempting the upright position, the pulse would become very weak and accelerated, followed by intense nausea and vomiting. He was sent home and put to bed. The next day he had occasional attacks of nausea and vomiting. In the intervals he felt well. In the afternoon he got out of bed, went to the water-closet, in another part of the house, returned in a few moments, lay down and died.

At the autopsy, made by Dr. Hugh Taylor, an aneurysm of the ascending aorta was found just above, and in close prox-

imity to, the heart, which had ruptured over an inch in length. The pericardium was so distended with fluid and blood-clots that when opened the fluid spurted out several feet.

The unusual and remarkable features of the case were the length of time which elapsed from the first indication of rupture until his death, over twenty-four hours, and his general good feeling.

THE CHOICE OF A DRUG TO DILATE THE PUPIL.

DR. EDWARD JACKSON, in a paper on this subject, said in part: As a basis for choosing the particular drug most appropriate for the particular case, we may briefly review their physiologic action on the pupil. When a drop of atropin, 1:120, is placed in the conjunctival sac, usually in ten or twelve minutes the pupil begins to dilate. The dilatation increases rapidly, the pupil at first reacting well to light, but being less and less affected by illumination as it grows larger. In fifteen or twenty minutes after it begins to dilate the maximum size that can be produced by atropin is reached, and it becomes quite fixed, failing to respond to any of the forms of stimulation that produce reactions in the normal pupil. For about two days this condition remains unchanged. Then the pupil very slowly becomes smaller, and at the same time its reaction gradually returns, until at ten or fifteen days after the application of the drug, it has again become normal. Repeated instillations of such a solution prolong to any desired extent the period of complete dilatation, and recovery may be slower. He has seen three weeks elapse between the last instillation and complete recovery. He has never seen the recovery complete in less than nine days. Dilatation of the pupil is accomplished by paralysis of the ciliary muscle, and suspension of the power of accommodation reaches the maximum in one or two hours, remains complete for about two days, and then slowly passes off with the contraction of the pupil. With smaller doses the period of complete dilatation is shortened. Of a solution of 1:500,000 a single small drop containing less than one-millionth of a grain, will produce a perceptible enlargement of the pupil lasting thirty-six to forty-eight hours.

The action of the other natural mydriatic alkaloids, daturin, duboisin, hyoscyamin and scopolamin closely resembles that of atropin. They are two or two and one-half times as strong as atropin. Recovery from their effects does not require so long as from the effects of atropin.

The artificial alkaloid, homatropin, differs essentially from any of the above in being very much weaker in its action, and in having a much shorter period of recovery. A solution of 1:50 is required to produce complete dilatation and fixity of the pupil, and a single instillation of this does not produce complete paralysis of the accommodation. Recovery is generally complete in twenty-four hours.

Euphthalmin, a more recent artificial alkaloid, is much weaker than homatropin. One instillation of 1:20 produces almost maximum dilatation, but not fixity of the pupil, and recovery is complete in about twenty-four hours.

In contrast with all of the above is the action of cocain. It never produces fixity of the pupil, yet even a single instillation of a solution of moderate strength will cause, with feeble illumination, a wider dilatation of the pupil than can be obtained by any application of atropin or the stronger mydriatics. This superiority of cocain is most marked in elderly persons, in whom the other mydriatics produce only moderate dilatation of the pupil. The influence of cocain is well shown by its effect in enlarging the pupil already fully dilated by one of the stronger mydriatics.

Dilatation of the pupil for ophthalmoscopic examination is necessary in elderly people, or young persons with somewhat irritable eyes. Here the indication is to dilate the pupil quickly and widely for as short a time as possible, and to cause the least inconvenience and impairment of vision afterward. For this purpose brevity of action is of importance not only for the comfort of the patient, but also for the reputation of the surgeon. This is particularly the case when there is reason to suspect some progressive lesion causing impairment of central vision, as albuminuric retinitis, or retrobulbar neuritis with central scotoma. It has repeatedly happened to him to meet a patient suffering from one of these diseases in whom, for purposes of examination, the pupil had been dilated by one of the slower mydriatics. The mydriatic caused immediate impairment of vision, and by the time mydriatic influence had imperceptibly passed away the original disease had caused an impairment of vision, which replaced that produced by the drug. On the other hand, a mydriatic like cocain, or a mixture of cocain and homatropin, causes comparatively little interference with vision at any time, its effect passes off rapidly, and the patient realizes that he has recovered from the drug.

When on any account there is reason to suspect glaucoma, the only mydriatic free from liability to produce an attack is cocain, because it causes dilatation of the pupil chiefly or wholly through shrinkage of the iris tissue by contraction of its vessels, and therefore has little tendency to cause blocking of the filtration angle and a glaucomatous attack. The diagnosis of glaucoma by the production of an acute attack may be justifiable in some doubtful cases. For this purpose homatropin should be used.

Dilatation of the pupil for the accurate measurement of refraction may be needful in old people with small pupils. He has seen a patient whose emmetropic eyes were quite devoid of accommodation, read 13 inch type at from ten to thirteen inches, simply because the smallness of the pupils prevented blurring from imperfect focusing. In such patients it is quite impossible to make any accurate determination with trial lenses without somewhat dilating the pupil. For this purpose cocain or the combination of cocain and homatropin is to be preferred.

To dilate the pupil for examination by oblique illumination, cocain, with one of the other mydriatics, should be used, homatropin if the dilatation is desired only during the examination, or one of the slower mydriatics if the eye is subsequently to be kept under its influence.

In central partial cataract, either polar or nuclear, the patient sometimes sees better in a dim light because the enlarged pupil then permits light to enter through the clearer portions of the cornea and lens. Atropin is here specially indicated, both because of the comparative fixity it gives to the pupil, and because of the persistence of its action.

For certain operations, dilatation of the pupil is an aid or an important condition of success, as for the delivery of the lens in the single extraction of the cataract, or the division of secondary cataract. Here cocain is indicated, as the pupil contracts less and slower than when it is under the influence of one of the stronger mydriatics. It must be remembered, however, that light should be partly excluded from the eye operated on and entirely from the other eye.

Dilatation of the pupil in iritis is of the greatest practical importance and presents especial difficulties. The iris is swollen, its movements are hampered and the general congestion of the tissues greatly interferes with the absorption of the drug employed. Atropin and hyoscyamin or its equivalent in solution of 1:60 should be placed directly on the cornea, and these must be supplemented by the employment of cocain in strong solutions.

For simple dilatation of the pupil of the normal eye, the following solution is the most satisfactory:

℞ Homatropin hydrobromate. . .	gr. i	.065
Cocain hydrochlorate	gr. ii	.13
Distilled water	ʒ i	31.10

A single drop of this is to be placed on the upper margin of the cornea. Its maximum effect is produced in about one hour. Recovery from its effects is well advanced in six hours and practically complete in twelve. It causes no irregular astigmatism, but slight impairment of accommodation, and permits a good deal of contraction of the pupil in strong sunlight.

In conclusion, Dr. Jackson made the following summary: The time has come when it is not sufficient merely to use some mydriatic, but for each particular indication a particular mydriatic should be chosen.

For brief dilatation of the pupil in the normal eye, euphthalmin in 5 per cent. solution; cocain in 2 to 4 per cent. solution, homatropin 1:500, or homatropin 1, cocain 2, water 500 should be resorted to.

To dilate the pupil without provoking glaucoma in an eye predisposed to it, cocain alone must be used. To provoke an attack of glaucoma in a doubtful case homatropin may be employed.

To keep the pupil dilated on account of central opacity of the lens or cornea, atropin is best, beginning with a solution of 1:2000.

Cocain must be used to secure the best dilatation of the pupil for operation.

In iritis strong solutions of hyoscyamin, duboisin, scopolamin or atropin are to be used, supplemented by instillation of a strong solution (5 or 10 per cent.) of cocain.

Orleans Parish Medical Society.

Meeting held April 8, 1899.

CONGENITAL MYOSARCOMA OF COCCYGEAL REGION.

DR. E. DENEGRE MARTIN presented a case and made reference to the different tumors which occur in this region: fatty, cartilaginous, osseous, vascular, fibroid, epithelial, cystic, sarcomatous, cystosarcomatous, caudal, fetal, involving Luschka's

gland, and complex tumors. Their origin is intrapelvic; their occurrence, infrequent, is not dependent on heredity to any extent; females are affected more often than males. The size varies considerably; the covering in part skin, in part mucous membrane; the cystic tumors usually contain dark fluid; the vascular supply is abundant. Dr. Martin's patient was the daughter of healthy parents; at the time of her birth, Sept. 10, 1894, nothing abnormal occurred, though the tumor was at this time nearly as large as the head, leading the attending midwife to suspect a twin pregnancy. The tumor, which weighed fifteen pounds, extended from the anus to the third piece of the sacrum, measuring four by two inches. The covering over one-half of its surface, from the base up, was skin, over the other half what appeared to be mucous membrane. Spina bifida was at first suspected on account of the cystic feel of the tumor. Operation was done the fifteenth day after birth, when a slough had made its appearance, the patient suffering very little from shock. In spite of the maintenance of the prone position and the measures to protect the wound against contamination with feces, there was slight infection, attended with a rise of the temperature to 101 and the formation of a superficial slough. No other complication disturbed the course of convalescence.

FALSETTO VOICE.

Drs. A. W. DE ROALDES and GORDON KING showed the case presented before the society at last meeting (vide JOURNAL, p. 474). The patient now answered questions in a baritone voice, which contrasted strongly with the high-pitched voice previously exhibited. The change had been brought about by a developmental system of vocal gymnastics, directed to the removal of the faulty habit acquired by the patient when a severe attack of measles had congested his larynx. Dr. de Roaldes called attention to the fact that in cases of this kind inspiration is defective, being accompanied by greater or less retraction of the abdomen. The patient must be taught to take deep breaths in silence and at same time relaxing the abdominal wall and allow it to bulge, relieving the diaphragm and lungs from the pressure exerted on them through the viscera by the contracted parietes. Practice in deep inspiration is followed by the forcing out of the breath in a sighing manner. The patient is then made to pronounce the vowel sounds in a low-pitched voice in expiration, after forcible inspiration. When this is done in a satisfactory manner, consonants are tacked on to the vowels (ba, be, bi, bo, bu) and dissyllables formed from these monosyllables; lastly the patient is drilled in reading in a low-pitched voice. All of this is gone through under the direction of individuals with deep voice and knowledge of pitch. Patients are often astonished to find themselves able to speak in the low pitch; a single lesson of one or two hours may accomplish a cure. The patient must, however, be carefully watched to prevent a lapse into the old habit; in the event of this occurring, his guard must stop him at once and give him the low pitch to imitate. Such has been the treatment in the case presented, in which the voice changed from falsetto to bass, finally assuming the baritone character.

OXYGEN IN PULMONARY DISEASE.

Dr. J. A. STORCK spoke of the application of oxygen in this affection, presenting an apparatus he uses. This consists of a metal cylinder filled with oxygen under pressure, to which is attached a rubber bag; to the rubber bag is connected a wash-bottle containing either plain water or a 50 per cent. solution of potassium hydrate, through which oxygen is drawn from the rubber bag by means of a glass mouthpiece. The oxygen may be allowed to escape through a funnel over the patient's face—in cases of pneumonia. In two cases of chronic asthma this treatment carried on during a period of three months, four gallons of oxygen being given at a sitting, has proved very beneficial.

ACQUIRED CRYPTORCHIDISM.

Dr. HAMILTON P. JONES told of a case in a sailor, 17 years of age. During a fight, a year and a half ago, his adversary caught him by the shoulders and struck him on the scrotum with his knee. The blow caused nausea and severe pain; on the following day he noticed that his testicles were no longer in their accustomed place in the scrotal pouch. Examination by Dr. Jones revealed the presence on the right side, over the middle of Poupart's ligament, of a body, pressure on which caused nausea; similarly situated on the left side was a fluctuating body—3 x 1½ x ½ inches in dimension—pressure on which did not cause nausea. The boy had exercised the virile function before the injury; he continued to have complete erection; the voice was masculine. He sought to have the testes replaced by an operation. Dr. Jones advised against this, suggesting that celluloid bodies might be placed in the scrotum for the sake of appearance if desired.

Dr. DE ROALDES said that traumatism of the organ of generation could not have a retroactive influence on the larynx after it had reached its full adult size. Emasculation, to influence the voice, must take place before the development of the larynx has been completed.

San Francisco County Medical Society.

Meeting held April 11, 1899.

DIAGNOSIS OF CEREBROSPINAL MENINGITIS.

Dr. W. FITCH CHENEY read a paper on this subject and said that the records in the office of the board of health show that during the fiscal year ending July 1, 1898, there had been filed 30 death certificates with this disease assigned as the cause of death. Ten of these deaths occurred between July 1 and Dec. 31, 1897; the remaining 20 during the first half of 1898. From July 1, 1898, to April 1, 1899, there have been filed 54 death certificates in which this disease is given as the cause of death. In the past nine months the number of deaths credited to cerebrospinal meningitis has nearly doubled the number which occurred during the whole of last year. Most authorities consider the disease a rare one; on this coast it has been regarded as particularly uncommon. Sporadic cases have been met with from time to time, but they have not been common and many old practitioners have never seen a case of this affection. The discovery of fifty four cases, or rather deaths, from this disease in the past nine months is therefore a matter of considerable import. Two questions arise when considering the matter: Is there any reason for this increase; and is there a possibility that some of these cases reported have been erroneously diagnosed? The second of these questions will be dealt with, but it is wise to look at the first for a moment.

Have there been any unusual conditions in the city during this time which could effect the disease under discussion? The spring and summer months of last year saw the assembling here of a large number of volunteers. They were encamped on the outskirts of the city. This assembling of troops has been noted by investigators as one of the principal predisposing causes in the propagation of cerebrospinal meningitis, especially when the men so massed are recruits and young soldiers. As the numbers increased, the cases of the disease increased; there were twice as many cases in the latter half of the year, as in the first half; there were many more soldiers in the city during the last six months of the fiscal year. Only a small proportion of the deaths are reported from the wards where the soldiers were camped; in fact, the deaths have been quite widely distributed over the city. Two conclusions seem evident: 1, the number of cases of this disease has been markedly increased by the advent of the soldiers; 2, the disease remains though the soldiers have departed. In February, fifteen certificates were filed, the largest number for any one month; in March there were eight deaths.

Diagnosis of any disease rests on two supports: symptoms and physical signs. The symptoms of cerebrospinal meningitis are unreliable guides to diagnosis, because the clinical course is so extremely variable. Certain manifestations occur with more or less regularity. Taken together they make up a comparatively good picture of the disease. The onset is sudden. The initial symptoms are usually chill, severe headache and vomiting. Pain in the head is the most common and constant phenomenon of the onset. The pain comes on abruptly, is usually agonizing and persistent. It is not always in the same part of the head, but is sometimes frontal and sometimes occipital. Bright lights and loud noises usually increase the pain. Vomiting is a fairly common symptom of the onset, and is present in at least two thirds of the cases; it may occur but once or twice or may persist for hours. Chill is not so commonly noticed, but frequently occurs. The development is rapid. The most marked symptoms are at once referred to the brain. Delirium comes on early, generally, and may be violent and maniac, or low and muttering. It is soon followed by drowiness and stupor, deepening to coma. The loss of consciousness may come at once, without the preliminary delirium. Profound disturbance of the cerebral functions is the first and most marked feature of the disease. Another symptom which is very common is the rigidity of the muscles of the neck. It may be simply stiffness, not easily discovered, or it may be a marked contraction, drawing the head back; the muscles of the back may also become contracted and the patient assume the condition of opisthotonos. Rigidity of the neck is found to occur in almost all cases. Other symptoms occur now and then, and should always be looked for: tremor of the muscles; tonic or clonic spasms of the extremities; strabismus; irregularity of the pupils; paralysis of the face. There are

also certain peculiarities about the skin, as labial herpes and petechial or erythematous spots over the body; the latter furnish ground for the old name of "spotted fever."

The temperature is irregular and variable. There is no uniform or characteristic curve; the fever may be high or low at different hours in the same day without any apparent reason for its fluctuation. The pulse is also variable and does not follow the temperature variations. It becomes slow with the onset of coma and the respirations then become sighing.

Physical signs: Ordinary methods do not reveal much. Inspection and palpation reveal the peculiar rigidity of the neck. Percussion and auscultation furnish negative testimony. They in this way eliminate some other conditions that might be mistaken for cerebrospinal meningitis, as for instance pneumonia and typhoid fever. One or two other methods afford valuable aid. First in importance is lumbar puncture, usually made between the third and fourth lumbar vertebræ in adults and between the second and third vertebrae in children. The spines should be first counted very carefully and the third and fourth marked with a nitrate of silver pencil. The needle is then introduced midway between these marks. To do this, the patient is turned on his side, the region thoroughly scrubbed and cleansed, the site of puncture anesthetized with ethyl chlorid spray, and the sterilized needle pushed through with steady pressure. It must go in for a depth of an inch or an inch and a half before the cord is entered. The operation is simple and easy of execution. As soon as the puncture is made the fluid exudes in drops or in a steady stream. If it does not run freely the syringe may be attached to the needle and suction used. The fluid is sometimes clear or opalescent, and sometimes turbid or even like pus. The appearance of the fluid is no guide to the diagnosis. Microscopic examination of stained specimens is required. Cover-slips should be smeared, dried and stained with Loeffler's alkaline methylene blue. The specific germ is a diplococcus, almost invariably inclosed within the polymorphonuclear leucocytes. This is the so called meningococcus, first described by Weichselbaum in 1887. One other organism may produce primary cerebrospinal meningitis, and if found in the fluid from the cord, is equally diagnostic; this is the pneumococcus lanceolatus. It stains well with the same stain. It differs from the meningococcus in being lance shaped. It occurs outside as well as inside of pus-cells and takes and retains the Gram stain, which the meningococcus does not. These two germs are the only ones associated with primary cerebrospinal meningitis. Cultures of the germs are not satisfactory; they do not grow well on anything, but do best on coagulated blood serum. Osler says: "Probably the most reliable method of diagnosis is lumbar puncture, which is easily performed and free from danger. Hereafter this procedure should be used early in all sporadic cases. It is not only perfectly harmless, but in some cases is distinctly beneficial." Councilman has had more experience than any other man in the United States. He says: "The surest method of diagnosis in meningitis, and one that should always be carried out when possible, consists in lumbar puncture . . . it is devoid of danger. It certainly deserves to be ranked as a method of diagnosis with examination of the sputum." Too much stress can not be laid on the point that it is not dangerous and may be, in some cases, of actual benefit by relieving the pressure on the brain. If no fluid comes at once from the needle, it may be because the needle is not in the subarachnoid space, or because the fluid is too thick to run. Examination of the fluid is simpler than the examination of sputum for tubercle bacilli or of blood for the malarial parasites. That it has no danger and may do good should remove objections.

The blood-count is also of importance in the diagnosis. One of the most constant features of the disease is a high leucocytosis. Absence of leucocytosis would almost positively exclude cerebrospinal meningitis. The presence of leucocytosis would almost positively exclude typhoid fever, the disease most liable to be mistaken for meningitis of this type.

A third method of diagnosis of value in clearing up obscure cases is an autopsy. This is of more value to the physician. In a disease suspected to be infectious it should always be performed. Precautions may then be taken to protect others.

Dr. Cheney then referred to his observations on six cases he had seen in the wards of Johns Hopkins Hospital last summer. In these cases lumbar puncture was frequently performed and he had seen it done and examined the fluid.

He returned, thinking diagnosis would be easily made were a case encountered. In the past three months he had seen three cases in consultation and had not found the diagnosis so easy as was anticipated. He detailed the cases, and in conclusion said a few words as to the difference between the primary and secondary forms of meningitis. His paper considered only the primary. This is always produced by the meningococcus or the pneumococcus. The secondary form may occur as a complication of pneumonia and is here produced by the pneumococcus; or may follow fracture of the skull, suppuration of the middle ear or facial erysipelas, in each of these cases being due to the streptococcus or staphylococcus; or may be due to the tubercle bacillus. In the secondary forms the diagnosis depends on the discovery of the primary disease, or clinical history, which vastly varies from the history of the primary form.

Dr. P. K. BROWN detailed cases, and said that the diplococcus was found in all the cases and in the pus as well as in the fluid from lumbar puncture. It was to be found in the secretion of the nose even.

Dr. FARNUM said that this was a most important point. We know that we have this disease in the community and it is therefore important to prove in all cases whether it is really cerebrospinal meningitis which we encounter in a certain case, in order that we may protect other persons who may have been or may be exposed. He had been much interested in proving the source of infection in several cases which had come within his knowledge. He had not yet failed to do so. In one case, that of a young woman, a personal friend of one of the patients reported at the present meeting, and who visited this patient during her fatal illness, subsequently developed the disease and died of it. He had investigated several cases of the same general sort with similar results; in all the contact with some one who had had the disease could be traced. He thought that, as we now know the disease to be contagious, all should be carefully examined and reported to the board of health just as any other infectious disease; especially as it is such a deplorably fatal disease. He had recently heard that several cases had appeared in Butte County.

Dr. J. D. ROBERTSON thought the disease very often existed and was not recognized; that some digestive disorder in children was thought to be the real trouble when the case was one of cerebrospinal meningitis. He saw four cases last year, all under four years of age, but they all recovered. The disease he knew to be epidemic in Wyoming at the present time. Whenever it was possible, the direct contagion could be traced, and he thought it was always due to direct contagion, though we could not always trace the source of the contagion.

Dr. P. K. BROWN called attention to the fact, now well known, that the disease was more common in the winter and spring months than at other times during the year, and he thought this had some bearing on the figures quoted by Dr. Cheney. More cases seemed to be reported in May than in any other month.

Dr. CHENEY said that there was one fact that he did not mention. The various symptoms of the disease all may be found as occurring in other diseases, but they occur together in no other affection with which he is acquainted. The conclusions which he wished to draw were: 1. The disease seems to be here in an epidemic form and is increasing. Consequently, all the cases should be reported to the board of health and quarantined, for the reason that it is an exceedingly fatal, contagious disease. 2. Lumbar puncture should be urged in all cases. He had not been successful in securing permission to perform the operation in the cases which he had had, but the public should be educated up to approving of this measure, especially as it could in no case do harm, and might in some cases do much good.

HEART IN FEVER AND DURING CONVALESCENCE.

Dr. P. WILLIAM NATHAN read a paper and discussed the question of the relative amount of energy consumption in the organism during fever, and thought that as the stored-up chemic energy is so much more rapidly used in fever, rest from work of all kinds should be insisted on. The heart needs rest, too; the pulse may be increased in rapidity, but it is not so full and energetic, and it indicates that the heart is not doing so much work, or is attempting to rest. The question as to the use of stimulants is a vital one, the pulse rate of no importance, its quality alone being an indication as to the condition of the heart. The use of antipyretics he deplored in most cases, unless the fever is excessive. Few patients could take any antipyretic without hurting the heart. He thought this equally true of cold baths. It is claimed for them that they rouse the patient from his stupor. This Dr. Nathan thought not a good feature, for the rousing of the patient makes him do so much more work, or consume just so much more energy. Somnolence is beneficial, in his opinion, rather than the reverse. In typhoid cases where cold baths had been used he had noticed that the convalescence was always protracted. He then discussed the relative values of the different stimulants and thought that alcohol should never be used; digitalis or digitalin should take its place.

Philadelphia County Medical Society.

Meeting held April 12, 1899.

DANGERS OF PEROXID OF HYDROGEN IN SURGICAL CASES.

Dr. G. S. SPENCER, in his paper on this subject, did not wish to discourage its use in all cases, but to show some of its contraindications as proven by certain cases which had come under his care. The first was one of carcinoma of the breast, for which an amputation had been done. On account of the large amount of tissue which had to be removed at the time of operation, the edges of the wound could not be drawn together, so that quite a large space was left to heal by granulation. On the seventeenth day, the patient was discharged to be treated in the dispensary. Some time later a sinus developed in the region of the wound. Three weeks subsequently the depth of the sinus measured two inches, into which was injected peroxid of hydrogen and a solution of bichlorid of mercury. Under this treatment the sinus constantly increased in depth. At the time when the sinus was injected with peroxid it was noticed that a small tumor would develop some distance away from wound. Judging from this it was evident that the peroxid was opening new tracts for the spread of the suppuration.

He had seen three cases treated with peroxid, in all of which cases the condition was made worse by the drug. These latter cases had been treated with care at the Jefferson Medical College. The first was one of stitch abscess following resection of bowel for carcinoma; the other cases were of a similar condition. In localized abscesses about the phalanges, peroxid should be used with great care, on account of its tendency to burrow, which in this region would carry infection beneath the deep palmar fascia and lead to development of palmar abscesses. It is known that the use of this agent in cases of otitis media has led to development of mastoiditis. Jonathan Hutchinson has spoken of a case in which, after the injection of peroxid into the cavity of the gum, suppuration increased. A case is known in which, after injection of a wineglassful of peroxid into the pleural cavity, there developed emboli, and subsequently hemiplegia. In another case in which it was injected into a sinus of the neck, alarming dyspnea followed.

Dr. WILSON, in discussing the paper, stated that the keynote of the dangers of peroxid had been sounded when the statement was made that it should not be injected into cavities with a small external opening. He knew of a case in which, after the injection of peroxid into a psoas abscess, there had followed rupture of the abdominal wall and protrusion of intestines. A cavity in which there was a small opening was a distinct contraindication to the use of the drug, and in such cases it was dangerous. In selected cases, however, he had seen much good result from peroxid.

Dr. LEFFENBACH thought that the drug had been much abused. Most otologists had long ceased injecting it into the ear in cases of otitis media. When used in these cases it should never be injected with a syringe, when harm would arise, but the parts might be swabbed out with absorbent cotton.

Dr. MORDECAI PRICE thought the paper had brought up the subject of the treatment of sinuses in general. He could see no good result from the injection of fluids into sinuses or cavities. The region of the lung or diaphragm should be approached with great caution with this remedy. He had seen alarming symptoms follow the injection of peroxid into a cyst near the diaphragm, and had knowledge of a case in which a small abscess of the finger, treated by injection of peroxid, had given rise to the development of palmar abscesses, and from extension of the infectious process up the arm, an amputation had been resorted to.

Dr. SOLOMON SOLIS COHEN said the abuse of the drug had resulted from a misunderstanding of its mode of action, and also from a misconception of the idea its warmest advocates claimed for it. In abscess cavities it might be best to first get rid of pus by the injection of saline solutions, and subsequently inject peroxid. Its greatest use is possibly in stimulating healthy granulation.

EXTRAPERITONEAL EFFUSION DUE TO SPONTANEOUS RUPTURE OF UTERUS—DEATH FROM PYEMIA.

Dr. REYNOLDS WILSON read this paper, the case being a primipara, aged 27 years, with normal pelvis, except that the transverse diameter was slightly less than normal. She had been in labor for several hours when first seen. The child was born five hours later in a normal manner. A few days later the patient began to suffer with severe pains in the bladder, rectum and down the sciatic nerve. A number of bloody stools occurred. On the third day there was distension of the abdomen, which became painful. The temperature rapidly rose, and death ensued several days later. The autopsy showed considerable laceration of the cervix and several sinuses which had developed in the region of the mass formed after the first few days. Abscesses were found under the recti muscles. Peritonitis was present and there were adhesions to the diaphragm; large amount of pus posterior to uterus. It was thought that rupture of the uterus had occurred at the time of labor, but that the usual symptoms were not present. The hemorrhage had been slow and probably came from the hemorrhoidal vessels. The lower portion of the uterus was ruptured.

Dr. R. C. NORRIS thought some features of the case rather unusual, and he had never seen a similar one, and that when a dull mass develops in the region of the uterus after labor it is good practice to make an exploratory incision. In several cases of this kind, he had operated and relieved the condition present, while, if treated by the expectant plan, harm would doubtless have ensued.

Dr. MORDECAI PRICE agreed with Dr. Norris that surgical procedure gives better results in these cases than does the expectant plan of treatment. When masses develop in the pelvic cases after labor it is his rule to always operate. He even operates in extreme cases.

Dr. REYNOLDS WILSON, in closing the discussion, stated that the evidences of hemorrhage were not at all pronounced in the case reported. Speaking of the treatment of similar ones, he had seen several in which a tumor had developed in the pelvis after labor with subsequent absorption and recovery. In one of these instances a tumor as large as a child's head had developed.

ELECTRIC HEATING APPLIED TO STEAM STERILIZATION.

Dr. CHARLES L. LEONARD'S paper discussed the production of dry hot air for therapeutic purposes, with demonstration of hot-air apparatus, consisting of a drum not unlike those commonly employed in the hot-air method. The principal advantage claimed for his device is that the heat is derived from electricity obtained from any system of electric lighting used in cities. The wires are arranged in such a way that heat is generated within the drum and is produced during its transmission through insulated material of a definite character. The current is controlled by proper switches. Another advantage of the apparatus is that provision is made for a constant current of air in the drum, which prevents the parts from becoming blistered. The cost for heating is about seven cents an hour. By this device he has been able to maintain the temperature at 420 F. without giving rise to pain.

Philadelphia College of Physicians.

Section on Ophthalmology, April 18, 1899.

HOLOCAIN.

Dr. WM. F. NORRIS spoke of his experience with this drug, highly recommended as a local anesthetic in cases of cataract operation. Besides this property its germicidal effect has been observed. He has made use of it in cases of corneal ulcerations, where it proved to be of decided benefit. He applies the drug by means of a swab dipped in a 1 per cent. solution. In traumatic and dendritic ulcers, its good effects had been quite marked in cases not relieved by other remedies. Improvement began within the first few weeks under holocain, whereas other applications had been of but little benefit, although used for months. He has also used holocain in cataract operation to advantage. Regarding its germicidal influence, cultures of staphylococci have been inoculated with the 1 per cent. solution. In the examination made half an hour later no effect had been produced, but at the end of two hours all micro-organisms were dead. In ulcers with deep edges the drug proved beneficial.

Dr. CHARLES A. OLIVER desired to know whether holocain injured the epithelial structures as does cocain; to which Dr. Norris replied that he had not observed so much scaling after holocain as from cocain.

Dr. GEORGE E. DE SCHWEINITZ stated that in a case of hypopyon keratitis in which he was using holocain, improvement was shown.

Dr. CHARLES A. OLIVER reported that a physician in Paris had stated that it was possible to make a 4 per cent. solution by dissolving holocain in peanut oil.

IMPLANTATION OF GLASS BALLS INTO ORBITAL CAVITY.

Dr. C. A. OLIVER gave a demonstration of a new method for this implantation in two cases of enucleation. The operation was a modification of that proposed by Frost. The purpose is to secure a better stump. The outline of operation is as follows: The conjunctiva is dissected from the cornea as in ordinary enucleation, and the conjunctiva still further removed until the muscles are reached, after which the latter are cut

loose from the eyeball, removing the tendon of the rectus internus first. The eye is then enucleated, cutting the optic nerve back as far as possible. Stitches are then introduced on either side of the cavity thus made so as to catch up the muscles and tissues. Two stitches are used, one placed externally, the other internally. In some respects they resemble the Kalt stitch, and when tightened the tissues surround the glass ball smoothly. Silk ligatures are used. After the operation ice-compresses are applied. The glass ball to be inserted should be two-thirds the size of the cavity made. In one of his cases the ball had been too small and had dropped downward. No reaction follows the operation.

DISLOCATION OF EYEBALL.

Dr. P. N. K. SCHWENK by invitation, read a paper on this subject. He considers dislocations to be of two kinds, simple and compound. The accident results from traumatism. In the simple variety the ball is in front of, while if compound it is without, the lids; there is also laceration of muscles of eye. Dr. Schwenk spoke of two cases of dislocation of eyeball he had been called upon to treat; the first one had resulted from running a spear into the eye; the second case occurred in a dog and was caused by a milk-wagon running over its head. In both instances the ball had been replaced and good vision had resulted.

COMPLETE MONOCULAR BLINDNESS.

Dr. WM. CAMPBELL POSEY reported a case following head injury, with restoration of vision. Thirty-six hours after injury, vision was becoming fainter, accredited by the patient to falling of the lid, but subsequently proving not the case. Five days later blindness was complete. The media were clear, blood-vessels almost collapsed. Leeches were at once applied; later given ascending doses of iodid of potash and strychnia. Vision was subsequently restored. The condition had probably resulted from fracture of the walls of one of the sinuses, subsequently leading to compression. In addition there was possibly fracture of the bone about the orbit, causing optic neuritis.

OCULOMOTOR PARALYSIS.

Dr. G. E. DE SCHWEINITZ reported a case following typhoid fever, with a cure. In August, 1888, the patient had two relapses of typhoid; in March, 1889, began to suffer from vomiting, and three days later there was complete ptosis. After several months, vision was ⅝, with no evidences of spots or visual defect. The urine had been carefully examined and no albumin found. It is a question as to the essential cause in cases of this character, since autopsy has demonstrated that it is not due to meningitis.

Dr. C. A. OLIVER stated that Kneiss and Nothnagel looked upon it as being due to nephritis, instead of the coexisting typhoid fever which might be present.

Philadelphia Pathological Society.

Meeting held April 13, 1899.

ACTION OF VENIN AND ANTIVENIN IN RABBITS.

Dr. JOSEPH MCFARLAND gave a demonstration and said that the investigations of Kitasato and Behring in diphtheria and tetanus doubtless had much to do with the perfection of the experiments of Calmette with the venom of serpents. The venin and antivenin which he proposed using had been obtained from the laboratory of Professor Calmette. The venin was a mixture of dried venom from various poisonous serpents of Madagascar, probably of the cobra variety. The beneficial effects of the antivenin, as prepared by Calmette, had been practically demonstrated in the French army, many of the men having died from snake bite previous to the introduction of the remedy, but after its introduction the mortality from this cause had been greatly reduced. In the experiment which followed, two full-grown rabbits were used. Into the vein of the ear of each animal was injected .25 c.c. of a 1 per cent. solution of venin. In the control animal, 2 c.c. of a solution of antivenin was immediately given, with the result that at the end of fifty minutes the animal receiving no antivenin had died, while the control animal manifested no symptoms of toxemia.

TRAUMATIC RUPTURE OF THE PELVIS OF THE KIDNEY.

Dr. J. M. SPELLISSY reported a case of this condition resulting from a fall from a scaffold, the patient striking on the abdomen. After the fall the patient had suffered from concussion, for about fifteen minutes, after which there was considerable abdominal pain, lasting two days. The temperature at this time was 100 F. A bulging on the left side of the abdomen was also observed. Hematuria also developed and lasted ten days. A diagnosis of rupture of the kidney was made. Septic symptoms having developed, an operation was performed, pus found, and through-and-through drainage established, but without relief, the patient dying on the twenty-eighth day. The autopsy showed a ruptured kidney filled with pus and the adjacent tissues proved that leakage had occurred posteriorly to the kidney, where a large collection of pus was found. Septic peritonitis was present.

INDICATIONS FROM CHANGES IN RETINAL ARTERIES.

Dr. GEORGE E. DE SCHWEINITZ read a paper on the changes in the retinal arteries indicative of general arterial disease from the opthalmoscopic standpoint. It has been demonstrated that chronic changes in the general arterial tree may manifest themselves in the retinal vessels, showing evidence of atheroma, arteriosclerosis and fatty degeneration. The statement that these changes were unrecognizable by the microscope, Dr. de Schweinitz regarded as questionable. The changes in arteriocapillary fibrosis which he was able to recognize in the retinal vessels by the ophthalmoscope, were: Alteration in caliber, alteration in walls of blood-vessels, increased brightness of arteries, which, at the crossing with the vein, was so transparent as to allow the vein to be seen. There is also an increased tortuosity of the diseased vessels. In the walls of the veins may be seen bright lines. Small hemorrhages may be present at the time of examination, or there may only be evidences of it, as shown by small whitish spots, the remainder of a former hemorrhage. The essential pathologic condition seems to be one of hyaline degeneration with thickening of the adventitia. The question raised had been whether or not those conditions occurred in old people during health, but after a thorough examination he could state that such does not occur.

Dr. A. A. ESHNER stated that when arteriosclerosis is manifested in the retinal vessels, it might possibly be an index to the condition of the cerebral vessels.

Dr. ARTHUR V. MEIGS said it is not always easy to determine that even the radial artery is of higher tension so-called, either by the touch of finger or sphygmograph. He had seen cases of arteriosclerosis frequently occurring in quite young persons or under 30 years of age.

Dr. H. A. HARE did not agree with Dr. Meigs that a high-tension pulse is hard to recognize, as it easy of demonstration.

Dr. WM. G. SPILLER spoke of tingling of fingers and toes in many cases, which he thought might be due to arteriocapillary fibrosis.

Dr. DAVID REISMAN thought that the high tension pulse might not infrequently be due to the absorption of some toxic material.

Dr. DE SCHWEINITZ, in closing, stated that one writer had found changes in the cerebral vessels similar to those in the retina.

Philadelphia College of Physicians.

Section on General Surgery.

X-RAY IN SURGERY.

Demonstrations were made showing the varied phases of this aid to diagnosis.

Dr. C. L. LEONARD called attention to one point in connection with the study of shadowgraphs, i. e., by this means of diagnosis we are not only able to make a positive diagnosis but a negative one as well. In all cases it requires accurate technic to procure a good image, and subsequently a familiarity on the part of the diagnostician with the pictures in obtaining a correct interpretation of the results. He presented cases of renal calculi, a correct image of these bodies being portrayed. In some cases only one stone was seen, while in one there were two calculi present. The latter case was one co existing with hydronephrosis. In operating upon this patient the surgeon had been aided greatly in determining the correct positions of each stone by the photograph taken. It was also manifest that hemorrhage in great part might be prevented, owing to a better knowledge as to where the stone lay, thus requiring smaller incisions.

Dr. W. W. KEEN corroborated the statements of Dr. Leonard in regard to certain cases of renal calculi in which skiagraphs had been made. He thought that when such convenient and positive diagnosis is at hand, the surgeon is not justified in cutting down upon a stone in the kidney unless a previous skiagraph had been taken. It is now a comparatively easy matter to get the correct position of the stone by simply measuring the distance from the spine of the vertebra to the stone, as told by the skiagraph. He placed special stress upon the medico-legal aspect of the X-ray, in that skiagraphs should never be allowed to go before an ignorant jury as evidence, because of the incorrect interpretations and deductions that would necessarily be made.

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SATURDAY, APRIL 29, 1899.

CANNED ROAST BEEF.

The Court of Inquiry into the character of the canned and refrigerated meat issued last year to the troops in Cuba and Porto Rico is nearing the end of its work. The court was convened by an order of the War Department, dated Feb. 9, 1899, to investigate "certain allegations of the major-general commanding the army in respect to the unfitness for issue of certain articles of food furnished by the subsistence department to the troops in the field during the recent operations in Cuba and Porto Rico." In addition to findings of fact, it was directed to submit an opinion upon the merits of the case together with such recommendations as to further proceedings as may seem to be warranted by the facts developed in the course of the inquiry. The questions before the court appear to involve the propriety of the action of the major-general commanding, the loyalty, business ability and integrity of the subsistence department and the good name and repute of the men who superintend the beef-packing interests of the country. The head-lines in the daily press, announcing the testimony presented from day to day, and the editorial comment thereon are strongly partisan and, in many instances, as extravagant as if some local political issue were under discussion. Besides, the testimony as published has sometimes been not over clear, as will happen when a sentence caught here and there by the reporter is made to do duty as a full expression of the views expressed by a witness. Nevertheless, if one is familiar with the subject, a careful study of the published testimony will enable him to determine the relative weight of the two sides to the controversy.

The history of the contention comes in as a part of the evidence in favor of the character of the meat ration provided by the subsistence department, for no special objection was raised against it until the allegations of the major-general commanding were made public. All through the summer of 1898 there came from the camps of the volunteer regiments complaints based on the confinement to a fixed ration. The new troops wanted variety in their diet, which the ignorance of company cooks, company officers and subordinate subsistence officers prevented them from obtaining; but there was no special criticism of the meat component of the ration. Even Major LOUIS L. SEAMAN, surgeon 1st U. S. volunteer engineers, who must be credited with having made a special study of the diet of the troops in Porto Rico, as the results of his observations were read before the New York Academy of Medicine, Feb. 2, 1899, and subsequently published in pamphlet form, makes no reference to any improper quality of the canned or refrigerated meat, his contention being merely that the meat ration whether canned or fresh, is in excess and should be diminished for troops in tropic climates. It is true that the troops reached Montauk Point from Santiago in a broken-down condition, but this was recognized at the time as the result of the febrile attacks, malarial and climatic, from which most of them had suffered. The only complaints heard at that time were that occasionally the refrigerated meat was coated with a fungus growth which had to be cut away, and that occasionally also it was tainted and had to be condemned, but this was regarded as no reflection on the subsistence department, considering the conditions to which the meat was exposed after issue from the refrigerator. But after publicity was given to the views of General MILES on the character of the canned meat, and the statements of Dr. DALY as to the detection of boric and salicylic acids in the fresh beef, the current of popular opinion as expressed in the daily papers was led to attribute all the ills from which the troops suffered to the use of these meats. Officers and soldiers then came forward to testify to the evil qualities of the canned roast beef: That it was not roast meat at all, but boiled meat—meat boiled to rags; that it was mawkish, insipid, slimy, unsatisfying and innutritious; that it induced nausea and vomiting; that dead grubs or worms were found in the freshly opened cans, implying a putrescent condition of the meat prior to canning; that ptomains which produced diarrhea, dysentery and fever were developed in the canned stuff within a few minutes after it was exposed to the air, and that the stench on shipboard and in storehouses from spoiled cans was so overpowering that many boxes had to be thrown overboard or buried. Now, since it is known that canned roast beef has been on the market for many years, used by the U. S. navy and the commercial

marine and exported for foreign governments for army use with no evil report as to its character, there arises in the mind the suggestion that the canning companies were guilty of the atrocious crime of sacrificing the troops to their commercial interests, and that this was possible through the culpable ignorance or worse than ignorance of the officials of the subsistence department. Testimony of the strongest character would be required to substantiate charges of such gravity, but that testimony has not yet been forthcoming. It has been conceded that the canned roast beef is really boiled beef. It is tasteless, insipid and mawkish, because the extractives of the meat and some of its salts have been removed in the cooking prior to processing the cans, and sapidity has not been restored to it by adding salt and spices. It is nothing more than the cooked meat canned and sterilized. The contents of the cans sent to Cuba and Porto Rico appear to have differed in no material respect from those that may be purchased in the grocery stores of our cities. This, alone, exonerates the manufacturers and relieves the subsistence department of much of its responsibility. Ordinarily when a can is opened in this country the contents are found to be solid, masses of pale muscular fibers imbedded in a fatty and gelatinous matrix; but not unlikely when cans were opened in Cuba the contents were semifluid and slimy from the melting of the gelatin and the softening of the fat under the influence of a tropic sun. Dead grubs in freshly opened cans may be attributed to the imagination of the non-expert observer, for the heat of processing which gelatinizes the connective tissue would leave few vestiges of the grub; and ptomains take time for their development even in Cuba. That cans will sometimes break down, swell and burst is to be expected; and one such can will give foul odor to the exterior of many cans in its neighborhood, leading thus to their condemnation.

Chemic analysis of the contents of the cans by experts in this line of work has demonstrated therein the presence of a satisfactory proportion of the proteids and fats. In such analyses the proteid or muscle-forming element is calculated from the quantity of nitrogen present. As meat extractives are nitrogenous, although not nutritive, their nitrogen exaggerates the proteid value of any sample containing them. The canned meat samples have had the greater part of their extractives removed. Nevertheless, they yield a larger percentage of nitrogen than the average sample of fresh beef, so that weight for weight they have the advantage over the latter in available nutritive value or in albuminoid and gelatinoid substances. The separate estimation of these nitrogenous proximate principles has not yet been satisfactorily accomplished; but Prof. J. W. MALLET of the University of Virginia and Prof. H. W. WILEY of the agricultural department have recently devoted attention to the subject and cleared the way for future progress.

Although the canned meat gives excellent chemic results, it is easily demonstrated that the soldier on active service requires more nitrogen, daily, than is contained in the proteids of his allowance of such meat, and more carbon than there is in its fats. Any attempt to supply the needs of the system by means of this meat alone would cause surfeit and sickness. It has to be supplemented by other substances, as the finest samples of porterhouse steak would have to be similarly supplemented. The loss of its extractives and salts gives it an insipid taste, which in the absence of kitchen facilities for its proper preparation, would beget distaste, and even nausea, were the canned meat used without preparation for a number of days in succession; and the nauseating tendency would naturally be heightened after the soldier had experienced a taint of decomposition in some portion held over in the opened can. Inasmuch as some of the troops used the canned roast beef as a daily ration for three weeks continuously, it is not surprising that a distaste for this meat was engendered strong enough to suggest to General MILES the necessity for an inquiry into its character. Odium was thrown on a valuable article of food, and the commercial interests involved were seriously damaged by the conditions under which the article was used. The responsibility for these conditions can not be laid upon the subsistence department nor on any of its officers. Refrigerated meat failed to give satisfaction under these conditions and it is not clear that fresh meat would have kept at Santiago from the time of killing to the time of cooking without in many instances becoming tainted.

CYSTS OF THE PANCREAS AND THEIR TREATMENT.

Pancreatic cysts may arise: 1, from the retention and accumulation of fluid in an occluded or obstructed pancreatic duct; 2, from the proliferation of pancreatic tissue, constituting cystadenomata; or, 3, as a result of traumatism or inflammatory processes leading to hemorrhage and dropsy of the lesser peritoneal cavity. The symptoms may be few or slight, or inconclusive. Among the most common are colicky pain, with nausea and vomiting, and the appearance of a tumor in the upper half of the abdomen.

The swelling is comparatively fixed and uninfluenced in position by respiration. Its contained fluid is of alkaline reaction, with a specific gravity of between 1010 and 1020, often of a reddish or brownish hue, and in it may be found red and colorless blood-cells or hemoglobin, granular detritus, fat globules and cholesterin. It may exhibit the fermentative activity of pancreatic juice. The bowels may be loose and the stools contain undigested fat. Pressure on the biliary passages will occasion jaundice and, on the portal vein, ascites. The urine may contain sugar or albumin, and the secretion of saliva may be in-

creased. Usually there is loss of weight and failure in strength.

In treatment the cyst may be extirpated or its contents simply evacuated, either through the anterior abdominal wall or through the loin. Simple aspiration, either for diagnosis or in treatment, is not permissible. Evacuation and drainage have been most commonly practiced. To the not very large number of cases hitherto recorded Bilton Pollard (*British Med. Jour.*, March 11, 1899, p. 594) adds the report of three further instances treated by incision and drainage through the anterior abdominal wall. One occurred in a man, 34 years old, who was well five years after the operation and attending to his work as a railroad signalman, although a sinus persisted. The second occurred in a man, 56 years old, who was perfectly well two years after the operation, except for the presence of a small ventral hernia. The third patient, a man 36 years old, presented a like condition a year after the operation.

In none of these cases was there a history of injury. In two the onset was marked by severe epigastric pain and frequent vomiting, in the other by sudden severe pain in the left hypochondrium, extending to the chest and giving rise to a choking sensation. In two of the cases there had been marked loss of flesh, in one as much as five pounds in two weeks. In none did the urine contain sugar, while in two an occasional trace of albumin was detected. The stools exhibited no peculiarity. Jaundice was present in one case only and in that after operation. In all three cases the tumor was large and occupied the epigastric and left hypochondriac regions, as well as portions of the umbilic and left lumbar. It moved little with respiration, but could be moved slightly from before backward and from side to side between the two hands. In two of the cases stomach-resonance could be elicited by light percussion in the epigastric region, although apparently occupied by the tumor, and this area of resonance was increased by distending the stomach with gas. In one case the percussion note was dull in the epigastric region over the most prominent part of the tumor, although at operation the cyst was found covered by the stomach. In this case the transverse colon could be traced over the lower part of the tumor. In one case there was good resonance in the flank behind the tumor, and this was increased by inflating the colon with gas through the rectum. In each case the tumor gave rise to a dull area on percussion in the left hypochondrium and also in the left lumbar region, but it could not be made to occupy the left loin as can a hydronephrotic kidney.

In two of the cases the lower pole of the left kidney could be felt behind the tumor just below the last rib. In one case distinct fluctuation and thrill could be elicited, and in all three the sense of tension and elasticity yielded by the tumor further suggested its cystic character. In each case the fluid removed at operation contained amylopsin, trypsin and steapsin. In one case the cyst lay behind the stomach and the transverse colon; in another it presented between the stomach and the colon, and in the third below the stomach, displacing the transverse colon downward. In all three cases the cyst was covered in front by omentum. In the first case the operation was performed in two stages, but in the other two the cyst was opened at once, after the greater part of its contents had been removed by aspiration. The margins of the opening into the cyst were stitched to the skin, and the cysts were drained for some time.

SIGNIFICANCE OF CERTAIN ANILINE STAINS FOR THE BIOCHEMISTRY OF THE CELLS.

The use of various stains has, of late years especially, been of the greatest importance in the study and differentiation of histologic elements, and has done much to enhance our knowledge in this department of medical science. Thus we have learned to discriminate between several different kinds of leucocytes and to gain some insight into the significance of their variation in number, nucleation, etc. Particularly with regard to the histology of the nervous system has elaboration in staining methods been productive of the most brilliant results, of which it may be safely said that we have only entered upon the beginning.

It has always been a matter of controversy whether the action of stains upon tissues is purely physical or really chemic, and of late years the tide has shown a strong tendency to turn in the direction of the chemic view.

Ehrlich, who has done so much work of the highest order in the development of staining methods, has shown that the staining of tissues is, in part at least, dependent upon chemic processes in nucleus and protoplasm, and it is in accordance with this conception that his triacid solution of orange G, acid fuchsin and methyl-green is constituted.

In using a modification of the triacid stain in a study of the nervous system, Rosin (*Berliner Klin. Woch.*, March 20, 1899, p. 251) found that the nerve-cells possess an important biochemic property that distinguishes them from all other cells, and residing in the presence of the basophile substances known as Nissl's granules, which react to stains like the nuclei of other cells. From this and from other experiences, Rosin was led to the belief that the staining of the tissues is dependent upon an active chemic process; and with the object of confirming this view he has studied the peculiarities and reactions of a number of crystalline stains in their relations with various tissues. He has found that the union of (acid) eosin and (basic) methylene blue results in the formation of a new staining substance provisionally designated methylene-blue eosinate, which is broken up into its constituents by the tissues so that the nuclei are stained blue and the protoplasm red; and by combining other acid and

basic aniline dyes it has been possible to obtain a whole series of crystalline staining substances.

Concentrated aqueous solutions are employed in such proportions that an approximately neutral reaction results and precipitation takes place, the precipitate being again soluble in an excess of either acid or alkaline stains. Such precipitates are obtained from combinations of aqueous solutions of eosin or erythrosin and methylene blue, of methyl orange and methyl-green, of rubin and malachite green, of picric acid and methylene blue or magenta red, etc. The substances deposited are of crystalline nature, and almost insoluble in water, though soluble in alcohol.

The precipitate resulting from the combination of eosin and methylene blue, which crystallizes in needle-shaped crystals, dissolves quite readily in alcohol, to which it imparts a violet blue tint and a deep green fluorescence. The crystals present a greenish metallic luster and disintegrate in the air, becoming dark brown. The solution yields a characteristic spectrum. This methylene-blue eosinate has proved of the greatest biochemic significance in the staining of tissues. An alcoholic solution is made blue or bluish-green by addition of organic acids, the original color returning on neutralization. Mineral acids act similarly, although the original color does not return on neutralization. Alkalies render the solution red, the original color returning on neutralization. All acid substances are stained blue, all alkaline substances red, all neutral substances violet, e.g., egg albumin red, mucin blue, nuclein blue, fibrin red. In sections of tissues the nuclei are stained blue and the protoplasm red, the nerve-cells excepted, and of which the ground-substance of the protoplasm is stained red and NISSL'S granules blue, while the nuclei are not stained blue. The neutrophilê granules of leukemic blood are stained violet.

The insolubility in water of the precipitates obtained in the manner outlined is a serious disadvantage in the staining of tissues, but it has been found that this may be overcome by dissolving them in an excess of either of the solutions primarily used, as for instance methylene blue or eosin. The more concentrated these solutions, the greater the amount of precipitate they will dissolve. The resulting solutions are, of course, no longer neutral, but either acid or alkaline, as the case may be.

STATE OF THE BLOOD IN ERYSIPELAS.

At a recent meeting of the Society of Biology of Paris, CHANTEMESSE pointed out that the leucocytosis-curve followed closely the temperature-curve, the polymorphonuclear cells especially undergoing increase in number, while the mononuclear cells, and particularly the lymphocytes, underwent diminution. With the onset of convalescence the polymorphonuclear cells resumed their usual proportion. The eosinophile cells disappeared during the attack, and reappeared with its termination. The occurrence of suppuration appeared to be of favorable prognostic import.

NEW CULTURE-MEDIUM FOR TYPHOID BACILLUS

At a recent meeting of the Berlin Medical Society, PIORKOWSKI described a new culture-medium that he had found of especial value in rapidly differentiating the typhoid bacillus and the bacterium coli commune. For this purpose he used two-days-old urine of a specific gravity of 1020, that had become alkaline, and to which were added 0.5 per cent. peptone and 3.3 per cent. gelatin. The mixture is boiled over a water-bath, filtered, run into glass tubes and sterilized for fifteen minutes, and again on the following day for ten minutes, at a temperature of 100 C. In the course of twenty hours the bacterium coli commune appears in round, yellow, finely-granulated and sharply-defined colonies; while the colonies of the typhoid bacillus exhibit a peculiar tendril-like arrangement suggestive of spiro-chetæ. In tube-cultures the bacterium coli grew upon the surface, while the typhoid bacillus grew within the substance of the medium.

TREATMENT OF DIPHTHERIA WITH ANTITOXIN.

A study of the cases of diphtheria treated at the Zurich Children's Hospital from 1874 to 1898 shows, according to the Swiss correspondent of the *Lancet*, the influence of the antitoxin in reducing the rate of mortality and corroborates the evidence already supplied by statistics from other sources. There were treated, from 1874 to 1891, 690 cases, with a mortality of 43.8 per cent.; from 1891 to 1894, 149 cases, with a mortality of 40.3 per cent.; from Oct. 25, 1894, to May 25, 1898, 385 cases (with antitoxin), with a mortality of 9.8 per cent. In the first period there were 404 cases operated on, with a mortality of 60.4 per cent.; in the second 79 cases, with a mortality of 65 8 per cent, and in the third 118 cases, (86 intubation, 32 tracheotomy), with a mortality of 19.4 per cent. In the cases not operated on—286, 70 and 267 respectively for the three periods—the mortality was 16.01, 11.4 and 5.6 per cent. respectively.

This report adds another testimony to the accummulated data in favor of the antitoxic treatment of diphtheria.

CONSCIENTIOUS OBJECTOR.

It is interesting to note, in connection with the outbreak of smallpox in Kentucky, a letter which has recently been addressed to the officers at Horse Cave, that State, where compulsory vaccination has been ordered. The letter is from a traveling man, who threatens to shoot any one who attempts to vaccinate his children, and in part reads: "With all due respect to the physicians of Hart County and the medical profession of the State of Kentucky, allow me to give you this warning. My children are my children, and there is no higher power over them than the God in heaven who is above us all. It is not in my heart to hurt or harm any man, but I make a frank statement that if I am living I will shoot the man who vaccinates or attempts to vaccinate one of my children.

. . . I absolutely, truthfully and intelligently mean exactly what I say, . . . as I believe it to be a complete poisonous humbug." The letter is signed W. J. Lewis and dated at Morganfield, Ky. It will be interesting to watch developments in this case.

TROPIC MEDICINE.

While the British Government is aiding in the foundation of a school of tropic medicine, a like movement has been begun in this country under the highest scientific auspices. The Johns Hopkins University, it is reported, will inaugurate, this coming fall, a course of lectures with laboratory work in the special disorders likely to be met with in our new dependencies, and tropic pathology and sanitation generally. Dr. WILLIAM OSLER, than whom no better authority can be found in this country, will have special charge of the course, a fact that bespeaks its scientific and practical value. There is to be, it is stated, a selection made among the candidates for this course, so as to insure the best scientific and other qualifications and the consequent future furthering of our knowledge of these matters that appear likely to be of greater national importance to us in the future than in the past. A vigorous sanitary campaign against the germs of certain tropic and other disorders in Cuba alone has already shown the effectiveness of such measures, and with a more thorough knowledge we may expect still better results. In that section it would seem there is almost a virgin field for sanitation

AMERICAN VS. FOREIGN LITERATURE.

A correspondent in this issue calls attention to a fact already editorially noticed in the JOURNAL, but which it may not be inopportune to notice again—the neglect of American contributions to medicine in other countries. Our correspondent also notes another point, the too frequent tendency of American journalists and writers to accept foreign dicta because they are such, and to, as it were, acquiesce in the semi-contemptuous opinion some foreigners affect of American medicine. We do not wish to encourage national conceit. There is enough of that everywhere, but we would like to see encouraged an appreciation of what good work is actually done in this country. The foreign journals will respect us more if we regard them a little less, and give ourselves the benefit of a little more national self-respect in the matter of our own contributions to contemporaneous medical progress. It is not to be inferred that any neglect of foreign literature is advised; the greater bulk of medical writing must naturally come from the three or four hundred millions of Europe rather than from our seventy-five millions. It is chiefly the tendency to neglect our own work on the part of ourselves and others that is to be deprecated.

PREVENTION OF PREMATURE BURIAL.

The London (England) Association for the Prevention of Premature Burial has just published its second annual report. The objects of the association are: 1. The prevention of premature burial generally, and especially amongst the members. 2. The diffusion of knowledge regarding the predisposing causes of the various forms of suspended animation or death-counterfeits. 3. The maintenance in London of a center of information and agitation. 4. According to an arrangement entered into with skilled and experienced medical experts in respect to death verifications, members of the association are guaranteed against premature burial. The executive committee reports that during the year 1898 an active propaganda was carried on in the press with the result that the association has become widely known in Great Britain and abroad. The names of twenty-one foreign and colonial correspondents are given, of whom eleven belong to the United States. The propaganda is ably carried on by the report itself, as it mainly consists of extracts from newspapers, giving gruesome accounts of the experiences of those who have been rescued from their impending premature burial, or who have been fortunately aroused from their cataleptic state just as the dissector's knife was about to be plunged into their vitals. The report closes with an appeal for funds, which appear to be much wanted as, to judge from the tabulated account of receipts and payments, and the unexpended balance, there is but little provision for fees for the "skilled and experienced medical experts" who have undertaken to protect the members from the horrible doom of being buried alive.

ONE DOMINION LICENSE IN CANADA.

Our Canadian friends are having the same trouble in reference to different laws in different provinces regulating the licensing of practitioners, although in a less degree, as we are having in the legislation in the different States. The question, however, is recognized there to the extent that an attempt is to be made to have a law or laws enacted that shall remedy this condition of affairs. In just what manner this shall be done is evidently not yet decided. Dr. A. LAPTHORN SMITH of Montreal, in the *Canada Lancet* (April), proposes that there shall be created a "University of Canada," which shall be an examining and licensing, but not a teaching, body—something on the plan of the College of Physicians of England. This "university" would in no way interfere with the present provincial boards and medical schools, which are satisfactory for those who propose to remain in one province. Those, however, who wish to be entitled to practice in any of the provinces, would have to pass through a uniform portal, the proposed university, the barriers of which must be as high at least as that of any of the provincial boards. This university would not only examine for the special degree at the end of the medical college course, but would examine the student as to his fitness in preliminary education, before he would be permitted to enter upon his medical studies. Dr. SMITH elaborates on his scheme, which, as outlined, seems to be a feasible, practicable and, above all, a laudable one. Some day this phase of medical legislation, making a uniform standard for all States, will have to be met

in our own country. A national examining and licensing board, under whatever name, whose requirements shall be high enough to satisfy the demands of any and every State in the Union, is a thing for which we may devoutly pray.

LIQUID AIR.

A few weeks ago an article on liquid air appeared in one of the magazines, and such extraordinary claims were made in regard to the possibilities and probabilities of this new material that not a few were convinced that the days of steam and electricity were numbered, that a revolution in mechanic and power-producing forces was about to take place. Judging from this article, not only had perpetual motion been invented, but, compared with this new power, all the discoveries of the past would be as mere playthings. While probably future studies, investigations and experiments in the subject of liquid air may prove this to be a *fin de siecle* wonder, the claims made by this writer are too sensational for belief even in this day of progress and discoveries. We know too well how, in medical matters, a little truth no larger than a grain of mustard seed is magnified to the size of a mountain by the sensational writers in the daily press. So also with other scientific matter. And, by the way, too often it happens that the little truth which existed at the beginning is liable to be lost sight of when the bubble of sensationalism is burst by the probe of investigation. While liquid air may prove to be a wonderful thing, it might be well to wait until men of authority in scientific matters tell us so in scientific journals, if we are not able to investigate it for ourselves. Magazine articles on scientific subjects are as rarely to be depended on as are newspaper articles on medical subjects. These comments are called forth from the fact that during the last ten days two papers have been received for publication, each of which was based on the magazine article to which we refer, and in each instance the statements contained in the article were accepted as law and gospel.

SANITARY HYPERLEGISLATION.

It is said that a bill is before the New York Legislature requiring telephone companies to sterilize their instruments, the bill having been inspired by the results of inspection by health officers during the height of the recent influenza epidemic. Undoubtedly such a procedure as is thus called for might be an excellent thing, at least as a psychic therapeutic measure, and may be easily practicable with telephones devoted to public use. To say, however, as a New York physician is quoted as saying, that "a call for central may be a summons for the destroying angel" or that "Schuylkill water is an elixir of life compared with the various mortuary evils which lurk in the innocent looking transmitter," as a Philadelphia newspaper puts it, is certainly a strong statement, and one that, by inference at least, conveys perhaps a very much more alarming impression than the facts actually warrant. If the insignificant dangers that lurk in the telephone receiver justify such utterances, what must we say of the public drinking cups, the dirty and unchanged seats of public conveyances, the unwashed or imperfectly washed utensils of the cheap restaurants, not to mention public towels, combs, and brushes of hotels and barber shops and a hundred other matters that the unthinking public has been utilizing without care or thought of peril? The fact is there is danger of infection everywhere, but there is also danger of overstating matters and thereby defeating the very purpose of the warnings we wish to give in most cases and creating a morbid mysophobia in a few, neither of which is a desirable result. The education of the public in sanitation, by sensational newspaper statements, is liable to defeat itself by its exaggeration or do genuine harm by overexciting the fears of the credulous. Sterilizing public telephones can do no harm and may relieve some people's minds, and if the New York Legislature chooses to enact such a regulation, we need not object. If, however, it should fail to do so, the public may still trust in Providence and bear in mind that numerous as are the perils between the cradle and the grave, as the Irishman said, we still daily perform the miracle of surviving them.

THE VITA PROPRIA OF CELLS.

The vitality which belongs to the individual cell has been designated by VIRCHOW as the vita propria of the cell. This characteristic of the cell has been studied but little. Studying inflammation of the cornea, GRAWITZ observed that certain injuries, which usually destroyed all cell life, did not seem to have any effect upon the cells of the cornea. Thus, drying of the cornea for eleven days did not kill the corneal corpuscles. BUSSE observed that ciliated epithelium from nasal polypi may preserve the movements of its cilia for eighteen days after having been separated from its matrix. Spermatozoa have been found to maintain their movement for a long time after death of the animal or after their separation from the living organism. SCHADE observed distinct movement eleven days after the spermatozoa had been removed from the testicle of the guinea-pig. The nearer the freezing-point of the temperature in which the spermatozoa were kept, the longer the duration of their movement. This persistence of the life of spermatozoa may be of medicolegal importance. In the rectum of a boy who had been murdered, living spermatozoa were found eight days after death, the body having remained in water at a temperature which varied between 3 degrees above and 3 degrees below zero C. The murderer subsequently confessed that he had used the body of the boy to satisfy unnatural sexual desire. WENTSCHER found that bits of skin, kept in a sterile salt solution, may maintain the vitality of some of the cells for as long as twenty-two days. Similar results have been obtained by SCHNITZLER and EWALD and LJUNGGREN. GROHE[1] has investigated the vita propria of the cells of the periosteum. The pieces were taken from rabbits and kept at a temperature of between zero C and 4 degrees above. The pieces were then transplanted, at various inter-

[1] Virchow's Archiv., Bd. 155, 1899.

vals of time, between the muscular bundles of the extensors of the forearm, and it was found that the periosteum maintained the capacity of proliferation for as long as one hundred hours after the death of the animal from which it was removed. When transplanted even at this late time, it would in some instances produce typic cartilage and bone tissue. It seems, then, that the formative layer of the periosteum may maintain, for about five days, its highest proliferative faculty, which science hitherto has regarded as characteristic of the living tissue. The persistence of the life of the cells of the periosteum for one hundred hours, of the epithelium of the skin for twenty-two days, of the vitality of the spermatozoa for eleven days, the movement of the cilia of ciliated epithelium for eighteen days, shows that GRAWITZ was not far from right when he stated, that after somatic death weeks may pass before life has disappeared from the last cell.

Medical News.

DR. ALBERT L. GIHON of New York sails for Europe May 20.

DR. J. H. OLIVER has been appointed dean of the Indiana Medical College, Indianapolis.

CONTRACT has been awarded for the enlargement of the Harrisburg (Pa.) Hospital for the Insane.

SIXTEEN cases of smallpox have been reported in Sayre, Pa., by Dr. R. B. Hammer, medical inspector of the State board of health.

ON APRIL 21 the Philadelphia Medical Club entertained Dr. W. T. Bull and Dr. William B. Coley of New York at an honorary dinner.

DR. HAL C. WYMAN, Detroit, Mich., was tendered a banquet at the Hotel Cadillac by the faculty of the Michigan College of Medicine, April 19.

DR. THADDEUS A. REAMY was given a complimentary dinner, April 28, by his Cincinnati colleagues, in honor of the seventieth anniversary of his birth.

THE HEALTH DEPARTMENT, New York City, has leased for ten years, at $10,000 a year, the building occupied until recently by the New York Athletic Club.

AN INSTITUTE for tropic hygiene, treatment of tropic disease, etc., is to be organized in Berlin at once. Professor Kohlstock is mentioned as the probable superintendent.

TO FACILITATE the detection of tubercle bacilli, Besancon and Griffen (*Lancet*) recommend inoculation of the suspected material upon a culture-medium of agar-agar mixed with blood.

THE MAYOR of Denver has appointed Dr. Thomas J. Carlin, health commissioner and Dr. Frank Dulin assistant inspector, to succeed Drs. William P. Munn and A. K. Worthington, respectively.

THE REPORT of the board of managers of the Atlantic Seashore House states that 1367 children were received in that institution last summer and 288 mothers also cared for. The season for 1899 opens June 1.

ACCORDING to the *Semaine Médicale*, Southern Australia is the first country to compel physicians summoned to attend a case of phthisis to report the case to the authorities, unless it has been previously declared by some other confrère.

GOVERNOR ROOSEVELT has signed the bill recently passed by the legislature, doing away with the time-honored but unwholesome practice of "kissing the book." It requires witnesses, when taking the oath in court, simply to place their hands on the Bible.

THE NEW quarters of the Free Home for Incurable Cancer, New York, at 426 Cherry street, will be opened on May 1. Its resources have been materially increased by recent subscriptions, contributions aggregating $528 having been received in one week.

SINCE our last mention of medical college commencements (vide JOURNAL, p. 891), the Maryland School of Medicine, Baltimore, has graduated 47, Marion Sims College of Medicine, St. Louis 83, and the College of Physicians and Surgeons, Baltimore 37.

THE CITY of Allentown, Pa., has recently erected a hospital composed of granite and brick, and equipped with all the modern improvements. The building will accommodate thirty patients. The sum of $5000 has been appropriated by the State for its maintenance.

BETH ISRAEL HOSPITAL of New York is to have a new building, to front 78 feet on Jefferson street and 113 feet on Cherry. The structure, to cost about $100,000, is to be fire-proof and provide 121 beds. The seventh or roof floor is to be equipped for a solarium.

WE LEARN that the *Medical Review*, St. Louis, has been sold to Dr. Hanau W. Loeb. Dr. L. T. Riesmeyer, who has been editor of the *Review* for the past six years, makes his "vale" in the last number, and so it is surmised that Dr. Loeb will act as editor as well as publisher.

DR. J. N. UPSHUR, Richmond, Va., professor of the practice of medicine in the Medical College of Virginia, has resigned to give his entire time to his practice. The board of visitors asks for applications for the position, which will be filled at the meeting of the board on May 4.

ELEVEN CASES of smallpox have been reported to the Kentucky State Board of Health, at Lebanon Junction, a town of 700 inhabitants. The board has enforced vigorous quarantine measures, as required by law, prohibiting any person from entering or leaving the place, and other restrictions.

A COMMITTEE has been appointed to study the conditions that prevail in the numerous districts in Russia, Perm, Oufa, Kazan, etc., where goiter is endemic. In Kazan it has been noted that persons subject to goiter are frequently sterile, and if they have children they are deaf and dumb, or dumb, demented or imbecile.

UP TO the present time there have been nearly five hundred more deaths reported to the local department of health, Cincinnati, Ohio, than during the corresponding period of last year. The department maintains that this is due mainly to tuberculosis and pneumonia, sequelæ of the influenza epidemic of last fall.

JOSEPH C. SIBLEY, congressman, has issued a letter

to the people of the Twenty-seventh District of Pennsylvania stating that he will divide his salary for the congressional term as follows: with the hospitals of Bradford, Kane, Oil City and Warren, each $2000, with a like amount for the establishment of an emergency hospital at Franklin, Pa.

UP TO April 20, inclusive, there have been 179 cases of smallpox in New Orleans (172 colored, 7 white), with 3 deaths; 38 cases are still under treatment. Among the patients discharged was a woman in the eighth month of pregnancy who had suffered a confluent attack of variola without having gestation brought to a premature termination.

BY THE will of Mary Dwyer, who recently died in Philadelphia, the following bequests have been made: To the St. Agnes Hospital, for the establishment of a free bed, to be known as the Dwyer bed, $1000; to St. Mary's Hospital $3000. . . By the will of Marie Brunhuter, $100 has been devised to the St. Agnes Hospital and $100 to the Maternity Hospital.

THE LEGISLATURE of Pennsylvania has increased the appropriation to the Hospital of the University of Pennsylvania, and the Jefferson Hospital, from $50,000 to $75,000 each. The original appropriation of $70,000 made to the Medico-Chirurgical Hospital was increased to $120,000. These appropriations have not yet been approved by the Governor (vide JOURNAL, p. 890).

THE SALE of factory-made medicinal tablets at drug stores has been forbidden in Prussia, and the decree is arousing a storm of protests from physicians who find it inconvenient to wait for the druggists to put up a tablet prescription, and claim that their productions are apt to be unsatisfactory. Even the pharmaceutic journals consider the measure ill advised, although it was passed to benefit the druggists.

Dr. B. F. NEWCOMER, Baltimore, has given $10,000 to the Hospital for Consumptives in that city, the only institution of its kind in the State. This fund will be used for the purchase of a large building and fifteen acres of ground situated about seven miles from Baltimore. Extensive improvements will be made in building and grounds at an expense of about $50,000, and accommodations will be provided for thirty inmates.

DR. MARTY has just concluded a study of 4,000 criminals in the French army, and his results go to prove that the criminal soldier shows a better bodily development than his fellow soldier with no such atavistic tendency. This better bodily development consists in greater height, weight, chest measurement, muscular power and general condition. The explanation offered by Dr. Marty for this is that it is only the very strong who can survive the wretched conditions of French criminal families.

SURGEON-GENERAL STERNBERG has ordered Major Walter Reed, M.D., to Puerto Principe to investigate the causes of the prevalence of typhoid fever in the Eighth Cavalry, stationed at that point. Major Reed is curator of the Army Medical Museum at Washington and was president of the board which investigated the cause of diseases in the camps of the United States army during the past summer. He is also professor of pathology and bacteriology in the Medical Department of the Columbian University. Dr. Reed's report will be looked for with interest.

THE BOARD of health at Zürich, Switzerland, keeps a number of washable linen overgarments, for the use of physicians attending contagious diseases: scarlet fever, diphtheria, etc. When the physician notifies the department of a case of contagious disease, he adds, "coats desired," and the authorities send the overgarment directly to the house for the physician to put on when he arrives and, on leaving the sick room he hangs it by the door and it is disinfected by the authorities when the case no longer needs attendance. Lausanne has had a similar arrangement for three years, which has proved very satisfactory.

STATISTICS show that since the development of the bubonic plague in India there have been a total of 250,000 deaths recorded there. These figures are probably approximate, as doubtless many have been concealed from the health authorities. In Bombay presidency, where the most accurate records are kept, there have been 134,000 deaths. The deaths in this district until recently were 1000 per week, but lately it seems to be mitigating on account of the advent of hot weather, when outdoor life is practiced. In the city of Bombay the deaths have fallen from 250 to 100 per day. It is stated that the Haffkine serum has proven to be of distinct benefit in the treatment.

THE PROHIBITION of the sale, to enlisted men, of a highly intoxicating liquor which is found in the wine shops of Manila under a variety of names has been agitated there for some time back. General Otis has referred the subject to his provost-marshal general for suggestions looking to a practical course of action. It appears that the liquor in question is alcohol which is extensively and cheaply made from the refuse of sugar houses. The strong spirit is diluted by the wine venders, colored and flavored to suit, and sold at the price which its name as borne on the label seems to warrant. An old Scotch whisky bottle with a perfect label sells, when filled with the alcoholic mixture, at a higher price than a bottle which does not bear a label.

A COMMITTEE of experts has been appointed by a Paris court to decide the questions as to the maximum length of exposure to the Roentgen rays allowable, the minimum space between the subject and the tube, and whether there is danger from the use of the sector. These questions have been raised in a suit brought against a radiographic specialist to whom a patient was sent by her physician on account of a supposed deep hip trouble. Three exposures of 40, 45 and 85 minutes resulted in a dermatitis and nervous disorders requiring medical care at an expense of nearly $700, and she therefore sued the specialist for $1000. The defense alleged that all the rules of the art had been complied with and that there must have been some idiosyncrasy on her part.

THE NEWSPAPERS of Chicago have announced Dr. Nicholas Senn as a candidate for governor of Illinois on the republican ticket. In an interview Dr. Senn intimates that he has been asked to allow his name to be used, and while he has not said positively that he would acquiesce, his political friends think he will. Evidently republican party leaders are looking upon him as a strong man who would have not only a full party following, but who would get many votes that no other republican could. The *Tribune* says: "There is not a man in the State who would make a better candidate. The Doctor has won reputation at home and abroad as an organizer and a fighter. His fame

as a surgeon, what he did in the army, his authorship of many books, his teaching in medical schools speak for themselves." While his admirers in the medical profession would probably dislike to have him leave its ranks for four years, their objections would be overcome by the knowledge that a great State would have for its governor a strong clean man, one who would be above petty partisan jobbery and political trickery, and who could be neither bought nor sold.

POISONING AT SAN JUAN, P. R.—On March 18, a large number of persons connected with the U.S. general hospital at San Juan, Porto Rico, became affected with cholera morbus. Tyrotoxicon was detected chemically in the milk. Forty-eight persons were more or less severely affected, including all classes connected with the hospital. The symptoms were severe colic, vomiting, diarrhea, marked depression of the vital powers and dilatation of the pupils. With one exception all those affected had used the milk-supply of that day, and many had partaken of nothing but milk. The symptoms in the exceptional case could be accounted for satisfactorily in another way. The dairy was inspected and found to be in good condition; but the milk was not subjected to cooling until it reached the city by wagon, about an hour and a half subsequent to milking. The proprietor of the farm promised to make arrangements for cooling the milk prior to transportation. According to Major J. Van R. Hoff, chief surgeon of the department, it is the custom of the country to boil all milk as soon as received; otherwise it soon becomes spoiled on account of scarcity of ice. The commanding officer of the hospital was advised to sterilize all his milk-supply instead of trusting to cold-storage.

OPERATIONS UNDER COCAIN.—In his surgical clinics before the students of the Medical Department of Tulane University, New Orleans, La., Dr. Rudolph Matas, occupying the chair of surgery in that institution, performed extensive operations under cocain analgesia, using Corning's method. Recently a modified Pirogoff amputation was done, the case being one of a frost-bitten Chopart stump. The great sciatic was exposed a little above the popliteal space and injected directly with cocain solution. Injections were also made in the course of the internal saphenous nerve in the lower third of the leg. The solutions varied in strength from .2 per cent. (Schleich formula) to 1 per cent. The operation was absolutely without pain. Earlier in the session the ring and little fingers of one hand were removed for epithelioma, by the same method. The median, ulnar and musculospinal nerves were exposed in the vicinity of the elbow-joint and injected with cocain solution. The same solutions were employed as in the foot case, in both cases a constrictor was applied above the cocainized area; the result was equally good. These and other cases are to be reported in full in the future.

Increased Resistance to Infection After Splenectomy.—Guinea-pigs inoculated with diphtheria fifteen to thirty days after removal of the spleen, survived forty-seven hours on an average, the control animals thirty-six; others inoculated with anthrax, fifty-one hours, the control animals fifteen. With cultures of the pyocyaneus, only one out of fourteen died, while eight of the normal control animals died and one barely survived. Inoculated in the abdomen, four out of eighteen splenectomized animals died, and thirteen out of the fifteen control animals.—*Ztft. f. Hyg. u. Inf.*, xxix, 3.

Association News.

Section on Surgery and Anatomy.—The program of this Section, for the Columbus meeting, includes the following papers:

1. Address of Chairman: Cicatricial Stricture of the Esophagus and its Surgical Treatment. W. J. Mayo, Rochester, Minn.
2. Etiology and Pathology of Gall-Stones. A. L. Wright, Carroll, Iowa.
3. Considerations on the Diagnosis and Treatment of Gall-Stones. Joseph Ransohoff, Cincinnati.
4. Observations on the Treatment of Gall-Stones. A. J. McCosh, New York City.
5. Surgery of the Common Bile-Duct. W. E. B. Davis Birmingham, Ala.
6. Appendicitis as a Cause of Inflammation of Right Ovary and Tube. A. J. Ochsner, Chicago.
7. Complications and Sequelæ of Appendiceal Abscess. J. B. Deaver, Philadelphia.
8. Bad Methods in Appendicitis. Robert Morris, New York City.
9. Presentation of the Operative Methods in Appendicitis. Joseph Price, Philadelphia.
10. Anatomy and Biology of the Processus Vermiformis. G. G. Eitel, Minneapolis.
11. Enucleation of the Mucosa of the Appendix. C. S. Hamilton, Columbus, Ohio.
12. Diagnosis and Treatment of Appendicitis, with Report of 100 Cases. W. J. Means, Columbus, Ohio.
13. Further Experience with Continuous Submersion in Treatment of Infected Wounds. F. J. Hodges, Ashland, Wis.
14. Desmoid Fibroma of the Abdominal Wall and Plastic Operation for Successful Repair of Defect Caused by Its Removal. A. I. Bouffleur, Chicago.
15. Wounds Produced by the Mauser Pistol. (German.) J. D. Griffith, Kansas City.
16. Observations on Prevention of Surgical Shock and Collapse, Based on Clinical and Experimental Evidence. George W. Crile, Cleveland.
17. Extrophy of the Bladder. Dudley P. Allen, Cleveland.
18. Extrophy of the Bladder. C. A. Wheaton, St. Paul.

Discussion of the papers on "Extrophy" opened by Rudolph Matas of New Orleans.

19. Tuberculosis of Fascia. J. E. Moore, Minneapolis.
20. Surgery in Knee Joint Tuberculosis. A. F. Jonas, Omaha.
21. Two Novel Cases of Surgery of the Trachea: 1. Stricture of the Trachea Successfully Removed by Operation. 2. Successful Removal of a Diaphragm in the Trachea Following Cut Throat and Producing Aphonia. W. W. Keen and W. S. Jones, Philadelphia.
22. Longitudinal Silver Wire Suture in the Closure of Wounds. M. L. Harris, Chicago.
23. Laminectomy, with Report of Cases. J. C. Monroe, Boston.
24. Pancreatic Cysts. L. L. McArthur, Chicago.
25. Splenectomy in Primary Splenomegalia. Harvey W. Cushing, Baltimore.
26. Treatment of Gunshot Wounds of Abdomen. J. C. Oliver, Cincinnati.
27. Some Unusual Symptoms of Aneurysm. Carl Beck, New York City.
28. Femoral Artery and Vein, Their Destruction Without Loss of Leg; Report of Case. B. Merrill Ricketts, Cincinnati.

Discussion of the two papers on "Aneurysm" will be opened by Edmond Souchon of New Orleans.

29. Surgical Treatment of Acute Peritonitis. A. F. House, Cleveland.
30. Resection of Rectum by Perineal Route. F. H. Wiggin, New York City.
31. Phantom, Semilunar and Annular Strictures of Rectum; Their Diagnosis and Radical Treatment Under Direct Inspection. Thos. C. Martin, Cleveland.
32. Some Complications Resulting from Rectal Operations. W. M. Beach, Pittsburg.
33. Excision of Rectum for Malignant Disease, Without Sacral Resection. N. Senn, Chicago.
34. Colostomy. J. A. Wyeth, New York City.
35. Intestinal Fistulæ. J. B. Murphy, Chicago.
36. Contribution to the Subject of Operative Interference in Perforating Typhoid Ulcer. C. A. Powers, Denver.
37. Influence of Age, Sex and Race in Surgical Diseases. W. L. Rodman, Philadelphia.
38. Surgical Treatment of Abscess of Lung. D. L. Fairchild, Clinton, Iowa.

39. Radical Cure of Inguinal Hernia in the Female, with Report of 100 Cases. W. B. Coley, New York.
40. Operation for Undescended Testicle and Congenital Hernia. A. D. Bevan, Chicago.
41. Typic Operation for Radical Cure of Inguinal Hernia and Atypic Ones. A. H. Ferguson, Chicago.
42. Hernia of Diaphragm, with Report of Cases. Floyd M. McRae, Atlanta, Ga.
43. Some of the Rare Forms of Hernia and Their Radical Treatment. R. Harvey Reed, Rock Springs, Wyo.
44. Bassini Operation without Buried Suture, for Radical Cure of Inguinal Hernia. E. H. Lee, Chicago.
45. Acute Gonorrhea: Its Prevention and Cure. Thos. Grant Youmans, Columbus, Ohio.
46. Emergency Surgery with Especial Reference to Work in the Homes of the Poor. R. C. Dugan, Eyota, Minn.
47. Treatment of Burns. M. F. Lee, Columbus, Ohio.
48. Traumatic Shock. Liston H. Montgomery, Chicago.
49. Would Surgery Suffer if Iodoform was Abolished? E. C. Brush, Zanesville, Ohio.
50. Detail in Cleft Palate Operations. S. L. McCurdy, Pittsburg.
51. Procedure of Election in Certain Cases of Enlarged Prostate. J. H. Dunn, Minneapolis.
52. Some Observations on the Bottini Operation for Prostatic Hypertrophy. Ramon Guitéras, New York City.
53. Automatic Drainage. William Jepson, Sioux City, Iowa.
54. Delayed and Non-Union of Fractures. Haldor Sneve, St. Paul.
55. Notes on Some of the Sequelæ Following Reducible and Irreducible Dislocation at the Humero Scapular Joint, and Their Treatment. Thos. H. Manley, New York.
56. Trephining for Tetanus. Emory Lanphear, St. Louis.
57. Reports of Some Cases of Brain Surgery. Carl Wagner, Chicago.
58. Mammary Cancer. J. H. Letcher, Henderson, Ky.
59. Unusual Phenomenon in a Case of Cancer of the Cardiac End of Stomach. C. D. Spivak, Denver.
60. Surgery of Gangrene of the Lungs. A. H. Levings, Milwaukee.
61. Use of Distilled Water and Boiling for the Sterilization of Surgical Instruments. W. K. Rogers, Columbus, Ohio.
62. Use of Dental Engine in Surgery. W. G. A. Bonwill, Philadelphia.
63. The Division Field Hospital. S. K. Crawford, Chicago.

Public Health.

Detroit Health Report.—For the week ending April 22: Total number of deaths 125; under 5 years 32. Total number of births, female 37, male 41. Contagious diseases: diphtheria, last report 7, new cases 4, recovered 7, none dead, 4 now sick; scarlet fever, last report 20, new cases 7, recovered 15, none dead, 12 now sick.

Ventilation of Rooms.—Dr. Caslaing of Poitiers has been awarded a prize by the French Academy of Science for his suggestion that two upper panes in each window be replaced with double panes a short distance apart, the outer pane leaving a narrow opening at the bottom as it does not reach quite to the sash below and the inner pane leaving a similar opening at the top as it does not reach quite up to the top of the sash.

Decadent Natality in Brazil.—Bulhoes Carvalho, in an urgent appeal for the sanitation of Rio Janeiro, to exterminate the foci where yellow fever breeds, calls attention to the decreasing natality in the indigenous races and to the importance of introducing foreign blood to prevent further decadence of the race. Immigration is now turned away from Rio Janeiro by apprehensions in regard to yellow fever. The Argentine Republic profits by this state of affairs and the "beneficent influence of Italian immigration has already had a marked effect on the natality statistics, in that country from the crossing of the two races."—*O Brazil Méd.*, March 8.

Vaccination of Army Recruits.—The regulations affecting the vaccination of recruits accepted for the army have recently been changed by orders from the adjutant-general's office. Prior to April 18, 1899, recruits were not examined as to vaccination until they arrived at a rendezvous, regiment or post where the army medical officer on duty performed the necessary operations. The orders issued on that date require the vaccination of all accepted recruits, not already protected, before leaving the recruiting station for a rendezvous, regiment or post, and as medical men under salary from the government may not be available for this work, provision is made for the payment of 50 cents per case to civilian physicians. Vaccin virus is supplied by the surgeon-general of the army. This change in the regulations is no doubt due to the prevalence of smallpox in the vicinity of many of the recruiting stations now open for the purpose of increasing the army to the maximum strength authorized by the last Congress.

Can Not Compel Vaccination.—The supreme court of Illinois reiterates, in the case of People vs. Board of Education, that a rule adopted by the State board of health compelling the vaccination of children as a prerequisite to their attending the public schools is unreasonable where smallpox does not exist in the community, and there is no reasonable cause to apprehend its appearance; that the power to compel the vaccination of children as a prerequisite to their attending public schools can only be derived from the general police power of the State, and can only be justified as a necessary means for preserving health. Besides this, the supreme court now further declares that it can not hold that in the preservation of the public health, under the police power of the State, a municipality invested with police power may invoke such power for the purpose of invading the individual liberty of citizens of the community. Neither the city, nor its board of health, nor the board of health of the State of Illinois, the court maintains, has power to require compulsory vaccination except in the public contingency before stated.

Malignancy of Malarial Infection in Cuba.—J. M. Espada (*Revista de Med. y Cir.*, March 25) draws a startling picture of the malignancy of paludism in Cuba, with which, it states, the ravages of yellow fever, dysentery, typhus and many other more dreaded diseases, are not to be compared. Yellow fever generally respects the natives, does not attack every one, and is not fatal for more than 20 to 25 per cent., while one attack ensures immunity for life. Paludism is very different. No one in a malarial locality escapes, and it recurs again and again, opening the gates to other enemies and assisting them in their invasion. The mortality from paludism is scarcely 1 per cent. on the records, but the subjects succumb to other diseases on account of the pre existing malarial diathesis. Children born of parents whose vitality is lowered by chronic paludism are deprived of their birthright of the "biologic fluid." Treating persons who live in a malarial locality is like trying to fill a sieve; they are cured, but the cure has to be soon repeated, each attack predisposing to another and more severe, unless there is a complete change of residence. The article concludes with a plea for energetic prophylactic measures, and the editorial in the preceding issue is an arraignment of the Americans for not having already commenced the task of the sanitation of Havana as promised and expected. "Disinfecting and painting a few houses and filling in a few holes in the streets will not reduce the death-rate."

Laboratory Committee: American Public Health Association.—At the meeting of this association, in September, 1898, it was decided to organize a standing committee composed of those actively engaged in laboratory work in connection with health boards. During the past few years, the chief development in sanitary science has been in connection with laboratory work, especially bacteriologic, so that every health board of importance now requires a special laboratory staff. Thus, within a few years, the number of laboratory men actively engaged in hygienic work and research has increased a hundred fold. The

necessity of some central organization which could further the development of sanitary laboratory work in both scientific and practical directions, seems very obvious, and it would be of the utmost value to health boards if arrangements could be made by which their laboratory representatives could meet with those of other boards. It is hoped that as many as possible of the sanitary laboratories on this continent will be represented on the laboratory committee, by some one who will be able to attend the meetings of the association. The intention of this committee is not to overlap or interfere with the work of other committees, but as far as possible to help them in their work, and it is desirable that members of other committees engaged in laboratory work should be regarded as ex-officio members of the laboratory committee. At the meetings of the association there is a practical difficulty in introducing papers and discussions of a technic nature into the general proceedings, and those matters which most interest laboratory men, must be essentially of a technic nature. It has, therefore, been decided to hold sessions of the committee during the day or two preceding the general meeting, or in spare time between the regular sessions. A temporary organization has been effected and the first general session of the committee will be held on Oct. 30, 1899, the day previous to the opening of the general meeting in Minneapolis. Professor Welch of Baltimore has kindly consented to be honorary chairman. The work of arranging the program has been undertaken by Dr. F. F. Westbrook of Minneapolis, who, in co operation with Dr. Probst, general secretary, will decide which papers are of a technic nature, more suited to laboratory committee sessions than for general meetings. Dr. A. Gehrman of Chicago has undertaken the editing of the proceedings and publication of the minutes of the meeting. The lines of work proposed, is as follows: 1. Original short papers on laboratory work and research. Summary reports of work accomplished during the year in the various laboratories. 2. Co-operative investigations: as on disinfection, water analysis, etc. 3. Short summaries of progress during the year in special lines of work. Those engaged in laboratory work bearing upon hygiene are eligible as members, and those wishing to become members will kindly address the chairman, Dr. Wyatt Johnston, 74 Shuter St., Montreal, Canada.

Health Reports.—The following cases of smallpox, yellow fever and plague have been reported to the surgeon-general of the United States Marine-Hospital Service for the week ended April 22, 1899:

SMALLPOX—UNITED STATES.

California: Los Angeles, March 25 to April 8, 4 cases, 1 death.
Colorado: Denver, March 18 to April 1, 9 cases.
District of Columbia: Washington, April 1–18, 17 cases.
Florida: Jacksonville, April 8–15, 1 case.
Indiana: Elmira, April 8–15, 2 cases.
Kentucky: Louisville, April 1–13, 26 cases, 2 deaths.
Louisiana: New Orleans, April 1–15, 23 cases, 1 death; Shreveport, April 19, 1 case imported from Mexico.
Massachusetts: Boston, April 8–15, 5 cases.
Michigan: Benton Township, reported present; Kalamazoo, April 1–15, 5 cases; Watervliet Township, reported present.
New York: Buffalo, April 20, 1 case; Elmira, April 8–15, 1 case.
Ohio: Cincinnati, April 1–14, 38 cases, 1 death; Cleveland, April 8–15, 13 cases.
Pennsylvania: Johnstown, April 8–15, 1 case; Pittsburg, April 8–15, 3 cases.
Rhode Island: Providence, April 20, 1 case.
Virginia: Alexandria, April 15, 1 new case; Newport News, April 8–13, 10 cases; Norfolk, April 7–12, 23 cases; Portsmouth, April 7–12, 18 cases, 1 death.
Washington: Spokane, April 1–8, 2 cases.

SMALLPOX—FOREIGN.

Belgium: Ghent, March 25 to April 1, 1 death.
Brazil: Bahia, March 11–18, 3 cases, 1 death.
China: Hongkong, February 25 to March 4, 2 cases 1 death.
Colombia: Barranquilla, March 25 to April 1, 2 cases.
Egypt, Cairo, March 11–18, 1 death.
England: London, March 18–25, 1 case.
Formosa: Tamsui, January 1 to February 28, 24 cases.
Mexico: Mexico, April 1–9, 1 case, 6 deaths.
Russia: Moscow, March 18–25, 22 cases, 8 deaths; Odessa, March 25 to April 1, 5 cases; Riga, January 1–31, 15 deaths.
Turkey: Constantinople, March 13–20, 8 deaths; Smyrna, March 5–12, 1 death.

YELLOW FEVER.

Mexico: Vera Cruz, April 6–13, 2 cases.

PLAGUE.

Formosa; Tamsui, January 1–31, 56 cases, 35 deaths; February 1–28, 126 cases, 84 deaths; February 22 to March 8, 107 cases, 63 deaths.

Army Medical Reports From Manila.—Among the first medical reports received at the surgeon-general's office from Manila, Philippine Islands subsequent to the outbreak of hostilities on February 4 last, was one dated February 15, from the brigade surgeon of the First Brigade, First Division, Eighth Army Corps, Major George Franklin Shiels. It refers to the list of casualties forwarded, and states that the progress of the wounded is satisfactory, and the general health of the command excellent. The excitement of the campaign appears to have largely done away with many of the minor ailments which formerly added to the number at daily sick call. Another brigade surgeon, Major F. J. Adams, surgeon of the First Montana Infantry, commenting on the condition of his command, the First Brigade of the Second Division, remarks that there has been a notable falling off in the sick list since hostilities commenced. Prior to February 4 the three regiments of Surgeon Shiel's brigade were quartered in various buildings. The First Washington Infantry was widely scattered, in the palace of the Archbishop, in a cigar factory, Paco, and in dwelling houses in the Calle Marcelino, the Calle Real and the Calle La Paz, all well lighted and ventilated. Its hospital at 66 Calle Nozelada had a capacity of 15 beds. Two officers and 64 men were on the sick list with the regiment, and 3 officers and 54 men were under treatment in the Reserve or other hospitals. Among the cases were 2 of smallpox and 25 of mumps. The First Idaho Infantry occupied a Nipa building known as the *Cock pit*, Paco, and Nipa barracks on the Calle Real, Malate. It had no regimental hospital, but on February 1 had 60 men sick in quarters and in the Reserve Hospital. The First California Infantry were somewhat crowded in the Cuartel de Infanteria and Cuartel de F. Fortin, which, however, were well lighted and ventilated. This regiment had a well-appointed hospital of forty beds on the Calle Real Ermita. Its sick numbered 101, of whom 26 were in quarters or regimental hospital, and 75 in the Reserve or other hospitals. The water-supply of all the regiments was reported as sufficient for every purpose, and the bathing facilities as excellent; the food-supply good, sufficient and well prepared, and the kitchens clean and well managed.

Major George H. Penrose, brigade surgeon of the Second Brigade, First Division, under date of March 2, reported that on the night of February 4 his brigade, which consisted of the Fourteenth U. S. Infantry, two battalions of the First North Dakota Infantry, one battalion of the Fifty-first Iowa Infantry, six troops of the Fourth U. S. Cavalry and one battery of the Sixth U. S. Artillery, was called into action. At 4 A.M. next day the fight at Cingalong road began, and by nightfall the town of Pasay was occupied. During the month the troops held a line of trenches south of the town. They were sheltered in native huts and improvised structures consisting of bamboo frames and banana leaves. Most of the organizations had their rations cooked in the city and sent out to them by rail. They had plenty of fresh beef and fresh bread. The supply of water for drinking was boiled before being used, as it was derived from shallow wells. The men on the right of the line bathed in the sea; those toward the left had an ample supply of water from the wells, and shower-baths were constructed by many

of the companies. The command was amply supplied with medicines, hospital stores and surgical dressings. All seriously sick men were sent to Manila for care and treatment. Major Penrose compliments the hospital corps for its organization and discipline. "The bravery of these men," he says, "has been the subject of a special report." He also testifies to a decrease in the sick list since the beginning of hostilities. The town of Pasay was found to be infected with smallpox, but although occupied by our troops from February 4 to March 2, no case had been reported among them.

The report of Lieut.-Col. H. Lippincott, chief surgeon Department of the Pacific, dated Feb. 23, 1899, was accompanied by casualty lists covering the period from the outbreak to February 11. Although brief and couched in general terms it gives a satisfactory view of the condition of affairs during this week of continuous fighting:

For many days we were in expectation of an attack on our lines, and this came at about 9 P.M. on the 4th and lasted till the morning of the 7th. Although the firing was active in front of several parts of our lines, nearly all wounds were received after midnight of the 4th and later in the month. A few of the mortally wounded arrived at the hospital before death took place. Those not mortally wounded gave every sign of hope of recovery on arrival. All were quickly brought in and dressing went on in order and with proper rapidity. They received instant attention on the field, for although the attack was sudden, and perhaps not looked for on that night, everything had been done in advance to secure the most thorough first aid in the event of an engagement.

The division surgeons and the medical officers of regiments were alert, and everything necessary was in readiness for immediate use. The ambulance company was reassembled, ambulances thoroughly equipped and the men served with travel rations. A full supply of first-aid packages, litters, lanterns, water, beef extract, dressings, stimulants, etc., were at hand, and the ambulances reinforced by carriages and carromatas. I am able to say that our department was in fine condition at the moment of the first fire, and continued to improve from day to day, so that there never was a delay in securing excellent attention for the wounded. The hospitals, too, were in readiness—the first Reserve Hospital (Crosby's) being used for all the severe cases and many of the slight ones; a few minor cases, however, were sent to the second Reserve Corps Hospital (Keefer's), while a number of slight cases found their way to the regimental hospitals.

The men of the Hospital Corps were properly equipped, and every man understood the part he was expected to take days before the attack, and there was the greatest enthusiasm among the men in performing the duty assigned to them.

The wounded are doing well at this date. They have every reasonable comfort and the prospect for their ultimate recovery is very encouraging.

Our supplies have been so liberally granted us, that not a wish has been expressed that I have not been able to meet, and for all this we are grateful to the surgeon general.

It is a matter of congratulation that first-aid instruction had been given for some time, systematic teaching having been instituted in the regiments, so that the corps men were quite skillful in their first aid work. The distance the men had to be taken before arrival at the first Reserve Hospital was from two to six miles, and this distance was covered quickly, although with every due consideration for the wounded.

The government ambulances worked well, but we should have more of them, only eight were available. However, with the other carriages we managed very well. Some of the wounded were taken in box cars from Caloocan, properly furnished with cots, blankets, pillows, etc., and on arrival at the depot in Manila they were carried in ambulances to the hospitals. Many of the slighter cases have returned, and others will soon do so. Thus far there have been no primary amputations excepting a few fingers.

Bed Sheet Stretcher.—Dr. Jacobsohn exhibited at a recent meeting of the Verein für innere Medicin, an apparatus for preventing the folding and rumpling of the sheets of bedridden patients. The apparatus consists of an iron frame, the foot plank being removable. The side planks are inserted into the hems of the sheet and the foot plank is then adjusted. The sheet can be tightened by screws.—*Deutsche Med. Woch.*, March 16.

Book Notices.

Nervous and Mental Diseases.—By ARCHIBALD CHURCH, M.D., Professor of Clinical Neurology and of Mental Diseases and Medical Jurisprudence in the Northwestern University Medical School, Professor in the Chicago Policlinic, etc., and FREDERICK PETERSON, M.D., Clinical Professor of Mental Diseases in the Woman's Medical College, New York; Chief of Clinic, Nervous Department, College of Physicians and Surgeons, New York.

This is really two separate works. The authorship is a double, though not a joint one. This fact is stated in the brief preface; the idea of the authors is simply to make a comprehensive general text book covering the whole field of nervous and mental disorders in such a way as to afford the student or practitioner a fair general view of these affections as they are recognized at the present time. In this, both authors appear to have succeeded, and their work will be accepted as a useful and satisfactory text-book.

There are very few points calling for any criticism of the work as designed for its purpose. The attempts to lay down absolute diagnostic distinctions between paresis and brain syphilis and neurasthenia is in accordance with common usage, but it always seems to us as useless and liable to confuse or lead to false diagnosis in some cases. All these are protean in their symptoms and only close, prolonged observation can separate them, if at all, and the distinction of pseudo-paresis and paresis has only one possibly valid support, the effect of specific treatment, and that is on the pure assumption that such treatment is invariably useless in paresis. This, and one or two minor matters, are all to which we can take exceptions.

The book is handsomely illustrated, clearly and interestingly written, and should meet with its merited success.

Gout, Its Pathology and Treatment. By ARTHUR P. LUFF, B.Sc., F.R.C.P. Physician in Charge of Out-patients, and Lecturer on Forensic Medicine at St. Mary's Hospital. New York: William Wood & Co. 1899.

The first part of this book is mainly a reproduction of the Goulstonian Lectures on "The Chemistry and Pathology of Gout," delivered in 1897. The second part discusses the causes, pathology, diagnosis and prognosis. The third is the important part of the book, in which the author gives the results of a large number of experiments made by himself to disprove many of the old theories believed in as to the cause of gout. Especially, he attempts to disprove the loss of alkalinity of the blood, as a cause, and shows that not only is the blood normal as to this condition, but that if it were not so it would not be conducive to the solubility of the sodium biurate. While he apparently shows by his experiments the untenableness of the older theories, he does not very satisfactorily give us anything in their stead. He discusses the effect of different foods and drinks, both in their relation to cause and cure, as also the various mineral waters in relation to their curative effects. While the profession in this country is not as much interested in this disease as is the profession in England, the experiments of the author will be of interest to those who are making a study of like affections here.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, etc., Volume i, March, 1899. Philadelphia and New York: Lea Bros. & Co. 1899.

The object of the editor, which is to present in a condensed form the latest accepted facts and knowledge in each department of medicine, is certainly a laudable one. With all the original research, scientific investigation, experimental and theoretic, that is being made; with the multiplicity of original papers full of ideas, which may be new or old, tenable or untenable, and with all the mass of literature that is being published, there is certainly need of having all this condensed,

the wheat separated from the chaff, and put in such a form that we may find out just where we stand. The different departments have been placed in the hands of those who are well qualified for the particular part given them, and the work has been well done. They have not only condensed and made accessible all the accumulated knowledge of the last few years, but each one has analyzed and stamped that which is presented with his own personality and views.

The subjects in this first volume are "The Surgery of the Head, Neck and Chest", J. Chalmers Da Costa; "Diseases of Children," Alexander D. Blackader; "Pathology," Ludvig Hektoen; "Infectious Diseases, including Croupous Pneumonia," William Sidney Thayer; "Laryngology and Rhinology," A. Logan Turner; and "Otology," Robert L. Randolph.

Transactions of the American Pediatric Society. Edited by FLOYD M. CRANDALL. Vol. x. Cloth. Pp. 226. Illustrated. New York: *Archives of Pediatrics.* 1898.

Besides the minutes of the tenth annual meeting, held at Cincinnati, Ohio, June 1 to 3, 1898, this volume contains an index of volumes one to ten, a list of presidents, officers, members and meeting-places of the society, also papers presented at the tenth annual session, on the following subjects: "The Scope and Limitations of the Hospitals for Infants," "The American Pediatric Society's Investigation on Infantile Scurvy in North America," "Should All Milk Used for Infant-Feeding be Heated for the Purpose of Killing Germs? If so, at What Temperature and How Long Continued?" "Three Cases of Amaurotic Family Idiocy," "Significance of Fever Following Operations for Pyothorax," "Irrigation by Submersion in the Treatment of Empyema," "Albuminuria as a Lithemic Manifestation in Early Life," "Death from Hemoptysis of a Child Aged 3 Years," "Urine of Healthy Infants and Children," "Short Reports of Unusual Cases," "Congenital Malformation of the Bile-Duct," "Seven Cases of Laryngeal Diphtheria Treated with Antitoxin, one death," "Exanthem of German Measles," "Dermoid Cyst Over Center of Large Fontanelle," "Heart-Stroke in Infants," "Fatal Hemoptysis in an Infant 2 Years Old," "Acute Nephritis of Malarial Origin," "Remarks on Classification of Anemias of Infancy, with Report of a Severe Case," "Melanosis Lenticularis Progressiva," "Sarcoma of Kidney in an Infant 9 Months Old," "Two Cases of Prolonged Pneumonia," "Report of a Case of Measles," "Teratoma of Sacrum and Coccyx," "Cases of Tubercular Meningitis with Peculiar Respiratory Phenomena."

Text-Book of Mechano-Therapy. By AXEL V. GRAFSTROM, B.Sc., M.D. Pp. 40. Illustrated. Price $1 net. Philadelphia: W. B. Saunders. 1899.

The author's endeavor in this volume is to present the subject in a condensed form, especially for the use of medical students and trained nurses. The various chapters are entitled, "Introduction, Classification and Definitions," "Effect of Movements," "Gymnastic Postures," "Medical Gymnastics," "Massage," "General Massage Treatment," "Diseases of Respiratory Organs," Movements and Cardiac Diseases," "Mechano-Therapy Used in the Treatment of Rheumatism and Gout," "Diseases of Urinary Organs and Their Treatment by Mechano-Therapy," "Chronic Constipation," "A Short Review of Mechano-Therapy as an Agent in Treatment of Diseases of Children," "A Few Remarks Concerning the Use of Mechano-Therapy in Connection with the Diseases of the Nervous System," "Local Treatment." The subjects of uterine and ocular massage have been omitted, as the author considers that they belong more especially to specialists.

Essays for Students.—By STEPHEN PAGET, F.R.C.S., Surgeon to the West London Hospital, Surgeon to the Eye and Throat Department of the Middlesex Hospital. New York: William Wood and Company, 1899.

These essays or lectures were prepared for students, and are more or less elementary. There are four essays, the subjects being "Strangulated Hernia," "Cancer of the Breast," "Some Run Over Cases," and "Elements of Aural Surgery." The three former are made up of reports of cases, and the lessons to be deduced from them. The last, which takes up nearly half the pages of the book, is the most important of the series, and covers practically the whole range of aural disease.

Epitome of the History of Medicine. By ROSWELL PARK, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Second Edition. Illustrated. Pp. xiv–370. Extra cloth, $2 net. Philadelphia: The F. A. Davis Co. 1899.

A second edition in so short a time proves that the excellent work of Dr. Park has been appreciated by the profession. The very few errors which appeared in the first have been eliminated in this edition. An additional chapter has been made by the insertion of the oration on "Iatrotheurgic Symbolism," which was delivered before the Maine Medical Association last June.

Retrospect of Practical Medicine. Edited by JAMES BRAITHWAITE, M.D., London, and E. F. TREVELYAN, M.D., London, B.Sc., M.R.P.C. Volume cxviii. Cloth. Pp. 436. New York: G. P. Putnam's Sons. 1899.

This volume is the American edition of Braithwaite's "Retrospect," published in London, and already noted in the JOURNAL (p. 383), the edition by the American publishers being on a better paper and of much more tasty binding, which makes it an ornament to any physician's library.

Transactions of Minnesota State Medical Society, 1898. Cloth. Pp. 180. Illustrated. St. Paul: *Northwestern Lancet.* 1898.

This volume has to do with the thirteenth annual meeting held at St. Paul, June 15, 1898, and in addition to the minutes, contains the various papers read at this session, also the constitution and by-laws, a roster of members and a list of the presidents of the society from its beginning. The volume is to be criticised in that it contains no index or table of contents.

Necrology.

THOMAS WISTER FLANNER, M.D., died in Philadelphia, April 18. He was a graduate of the University of Pennsylvania, and a commander in the United States Navy during the Civil War, under Admiral Porter. It is stated that his death was primarily due to a wound received in the head during the bombardment of Arkansas Post in January, 1863. He was a native of North Carolina, and for a time practiced his profession in Springfield, Ill.

R. H. PLUMMER, M.D., San Francisco, Cal., died April 23, after an illness of two weeks with meningitis. The Doctor was a graduate of the Toland Medical School, 1866, and for twenty years was associated with Dr. L. C. Lane, founder of the Cooper Medical College, San Francisco. He was chairman of the entertainment committee of the AMERICAN MEDICAL ASSOCIATION at its meeting in San Francisco in 1894. He also held the professorship of anatomy in Cooper Medical College.

JOHN RICHARD CONWAY, M.D., College Physicians and Surgeons, New York, 1883, died at his home in New York City, April 22, aged 36 years. In 1884 he became an interne of Bellevue Hospital, and later on was a visiting surgeon of the Charities Hospital, Ward Island, N. Y.

JOSEPH H. MOONEY, M.D., Kansas City, a member of the faculty of the College of Physicians and Surgeons of Kansas City, Kan., died April 19, from abscess of the lungs. The Doctor was born in Wheeling, W. Va., forty-seven years ago.

ALONZO F. STEIGERS, M.D., late assistant librarian in the office of the surgeon-general of the army, died April 12. He was 55 years old and unmarried. Dr. Steigers entered the Union Army as a surgeon during the Civil War, and later became a contract surgeon in the regular army. He held this

position a number of years and saw service in several Indian outbreaks. He was shot in a conflict with Indians in Nevada and subsequently lost an arm from the wound. He resigned his position in the army about seven years ago to accept the office which he held at the Army Medical Museum at the time of his death.

PARK BEEMAN, M.D., Sidney, Ohio, died at Carysville, April 12 . . Charles Collin, M.D., Middletown, N. Y., April 15. . . Ruel Keith Compton, M.D., Pomonkey, Md., April 14, aged 72 years. . . C. D. Dake, M.D., Belleville, Ill., April 22, aged 50 years . . William M. Kemp, M.D., Bellevue, class of 1870, of New York City, April 22, aged 52 years . . Henry F. Kretz, M.D., Munich, 1894, of New York City, died April 23, aged 55 years . . C. W. Leabo, M.D., Greenridge, Mo., April 19, aged 46 years . . Selden J. Mudge, M.D., Olean, N. Y., April 19, aged 48 years . . Arnold Naudain, M.D., Univ. Pa., 1852, of Tremont, New York City, April 16, in his 70th year. . . W. M. Patterson, M.D., Campbell, Texas, April 8, aged 68 years . . William G. Stewart, M.D., Western Reserve Univ., Cleveland, Ohio, 1874, Newville, Pa., April 14, aged 59 years.

RESOLUTIONS ON DEATH OF W. W. VAN ARSDALE (vide JOURNAL, April 1, p. 733).—The following memorial notice was adopted by the New York County Medical Association at its stated meeting on April 17, and ordered published in the medical journals:

Resolved, That in the death of Dr. W. W. Van Arsdale the New York County Medical Association has lost one of its most accomplished members. In addition to a thorough academic education, Dr. Van Arsdale passed successfully through the long course of study required at the University of Leipsic in Germany, from which institution he graduated with honors, and afterward served the required term of service in the great hospital of that city as pupil of, and assistant to, the distinguished Professor Thiersch. Returning to his native country he located in New York City, became connected as an assistant to the chair of surgery in the New York Polyclinic Medical School and Hospital in the early days of its organization, and served with such faithfulness and proficiency that he gradually rose to the professorship of surgery, which position he filled with entire satisfaction and held at the time of his lamented death. He was also assistant surgeon to the New York Cancer Hospital. For four years before his death he had been assistant visiting surgeon to Mount Sinai Hospital, where his conscientious and thoroughly scientific work was fully appreciated, and where his loss will be keenly felt.

Dr. Van Arsdale was twice elected chairman of the Section on Surgery in the New York Academy of Medicine, and was an earnest working member of the New York Surgical Society. He contributed many valuable papers upon scientific subjects to the various medical journals, and was justly considered one of the clearest writers of his day upon surgical topics.

JOHN A. WYETH, M.D., Chairman,
FRANCIS J. QUINLAN, M.D.,
A. ERNEST GALLANT, M.D., } Committee.

New Operation for Gastroenterostomy.—Dr. Sholita reports (*Vratch*, No. 1, Vol. xx, 1899) two successful cases of gastroenterostomy performed according to a new method devised by Professor Podrez in 1898. The idea is based on the well known fact that a stitch made intentionally or unintentionally through the entire thickness of the wall of stomach or intestine produces a fistulous opening larger than the original stitch. The *modus operandi* is very simple. Having approximated the desired loop of the intestine to the anterior or posterior wall of the stomach, the needle, threaded with stout silk, is passed into the stomach and brought out at a distance of two centimeters; the same needle is introduced into the loop of the intestines and brought out at a distance of two centimeters, opposite the one made in the stomach. The two ends of the thread are then tied tightly. A similar stitch is made over the first one, but in an opposite direction. To insure the adhesion of the serous coats, four Lembert sutures are added, one at each corner of the cross like figure. After a few days, when the adhesion of the serous membrane is complete, the whole area enclosed between the stitches forms a large rhombic opening. Professor Podrez carried on his experiments nine days, and in each instance he found the opening established on the fourth day. The cases of Dr. Sholita are, he claims, the first on record where this method was applied to human beings. The entire operation is performed in a few minutes.

New Instruments.

Frasnotomy Speculum.

BY J. LUE SUTHERLAND, M.D.
GRAND ISLAND, NEB.

Some months ago, in cutting a tongue-tie for a strong and very refractory baby boy, I experienced such difficulty in bringing the parts into proper position to make the operation safe, that I was led to devise a speculum for this purpose. The

illustration is sufficient to explain the utility and convenience of the instrument, which is strong, light and aseptic, and can be used in either hand. I have called it "Sutherland's Frasnotomy Speculum." It is made by Chas. Truax, Greene & Co., Chicago.

Miscellany.

Inguinal Hernia of the Bladder.—In thirty recent cases of inguinal hernia operated on at von Bruns' clinic, the bladder was found involved in the hernia in eight, and with the ureter in one. The presence of a layer of fat between the peritoneum and the bladder should arouse the suspicion of a cystocele.—*Beitrage z. Klin. Chir.*, xxiii, 1.

Wanted.—The following numbers of the JOURNAL are needed to complete file for a State library: Vol. i, Nos. 1, 10, 16, and 26; vol. ii, Nos. 8, 14, and 19; vol. iii, Nos. 4, 11 and 25; and vol. xv, No. 13. Parties holding any or all of these numbers who care to dispose of them, will confer a favor by returning same to the JOURNAL office, and 25 cents a copy will be remitted for each copy received.

Entrance of Air Into Lungs During Operations.—Three cases are described in detail in the *Cbl. f. Chir.* of March 18. In one case a fatal result was only avoided by massage of the heart (Maass-König), to which the organ responded visibly and successfully. The writer, J. Sternberg, urges the more general adoption of this valuable measure. One case presented complete paralysis of the left side for twelve hours, gradually passing away. Only three cases of paralysis consecutive to embolism are on record: one, hemiplegia, and two, light paresis.

Hearing for the Deaf.—Prof. V. Urbantschitsch has been applying to moderately deaf persons the exercises devised for the deaf and dumb, and has secured remarkable success in a large number of cases. The main point is concentration of the attention, while another person repeats certain words or syllables in a conversational tone until by repetition, the deaf person finds that he can at last hear the word. By using an ear trumpet and tube, the subject can repeat the words into his own ear, but it is best to depend upon a third person. Social intercourse, the theater, etc., are to be urged upon the deaf, as training this power of concentrating the attention; the hearing

will be found better in these conditions than when the subject lives quiet and retired. Much patience and perseverance are required, but the results more than justify them in many cases, as Goldstein of St. Louis proclaims, with many others.—*Vienna Klin. Woch.*, February 23.

Reading Medical Works to Jury.—Medical works, of however standard and approved authority on the subjects to which they relate, the supreme court of Florida holds, in the case of Eggart vs. State, can not be read or introduced before juries as independent, substantive, or affirmative proof; but this rule, it adds, is subject to the exception that specified books may be introduced in rebuttal to contradict a witness who has testified to having derived therefrom teachings that they do not contain, or whose teachings are substantially different from that testified to.

Gangrenous Ulcer from Insect Bite in Yucatan.—A physician in Vera Cruz has had occasion to treat a number of cases of workmen returning from the east coast of Yucatan, for a gangrenous ulcer on the ear, neck or hands, caused by the sting of some fly. The ulcer extends superficially and inward until the bone is exposed, sometimes destroying the outer ear. He found all therapeutic measures ineffectual until he tried a 5 per cent. solution of chlorid of zinc, which cures the ulcer completely in two or three applications.—*Cron. Med. Mexicana*, April.

Heredity of Ptosis Palbebrarum.—M. Münden of Hamburg relates (*Deutsche Med. Woch.* March 9) that in 1820 a woman was crossing the river in a boat when it upset, and in her struggle the eyelids were convulsively closed; rescued and revived, the lids were permanently affected with ptosis. Pregnant at the time, when she gave birth to the child it was also affected with permanent ptosis palpebrarum. This child grew up and bore three children, two normal and one with the same congenital ptosis. The latter is still living and one of his children is also affected in the same way.

The Spanish Wounded at Manila.—An article in the *Archives de Medecine Navale* for February, reports Bremaud's observations of the Spanish wounded during the blockade of Manila. "The number was very small, and the troops suffered more from the bad hygienic conditions than from the enemy's fire." He cites instances to prove the comparative harmlessness of wounds from the small-caliber bullets fired with such initial velocity. They pass entirely through the member with only a small hole on each side and complete *restitutio ad integrum* in a few days. The chest or the abdomen could be shot through in this way without arresting the man's progress. He observed several who returned to active service a few days after such a wound, and is inclined to think that these projectiles would be unable to check a vigorous infantry or cavalry charge.

Boards of Army Medical Officers.—Two boards of army medical officers were convened by War Department orders during the past week, one in Washington, D. C., the other in San Francisco, Cal. The object of the former is to inquire into the practical results obtained by present methods of instruction, and to suggest any change that may seem to be advisable in view of the experience gained during the past year. It consists of Col. Dallas Bache, assistant surgeon-general, Major Louis A. La Garde, surgeon, and Capt. William C. Borden, asst. surgeon. The latter was convened for the purpose of determining the fitness of certain officers for service in higher grades, in accordance with the laws regulating promotion. It consists of Col. W. H. Forwood, assistant surgeon-general, Capt. Edward Everts and Capt. Thomas U. Raymond, asst. surgeons.

Camphorated Oil in Pulmonary Tuberculosis.—Therapeutic measures that increase the appetite are very useful in the therapeutics of phthisis. Injections of camphorated oil are effectual from this point of view, especially when there is atony of the stomach. The temperature falls, suppuration is checked, the sputa and cough diminish. Camphor is in these cases what digitalin is in cardiac affections. If the patient has fever, a subcutaneous injection of .1 to .2 gm. of 10 per cent. camphorated oil is made every day for four to six weeks, and after an interval of one to four weeks, recommenced as before. If there is no fever daily, inject .3 to .5 gm. of camphor every day for a week, suspending it then for a week. If more convenient, .1 gram can be injected at once for four days, then interrupt eight and recommence. There are no counterindications; even hemoptysis does not counterindicate these injections.—*Rev. Gen. de Path. Int.*, February 5.

Malpractice a Defense to Action for Services.—In an action to recover for surgical and medical services rendered, where malpractice is relied upon as a defense, the court of appeals of Kansas holds, in the case of Abbott vs. Mayfield, that it is reversible error for the court to refuse to instruct the jury that, if they find as a fact that the plaintiff was guilty of malpractice, he can not recover for such services. "Malpractice, in law," it was charged in this case, "means bad or unskilful practice in a physician. It may occur from neglect or ignorance." This definition, the court of appeals holds, was not sufficiently comprehensive. It criticizes it especially in that it confined malpractice to a physician, and failed to conclude with the resultant injury to the patient. As an apparently satisfactory definition, it quotes from Anderson's Law Dictionary: "Malpractice—Unskilful treatment by a physician or surgeon, in consequence of which the patient is injured more or less seriously, perhaps permanently."

Etiology of Leukemia.—In the *Centralblatt für Bakterologie* (Vol. xv., Nos. 8 and 9, 1899), Lowit gives the following as the most important results of his investigations into the cause of leukemia, the complete description of which will soon follow. In myelogenic leukemia he finds a leucocytic ameba in the peripheral blood, which he calls the hemameba leukemiæ magna, whose multiplication in the blood occurs by way of spores. In the blood-forming organs spores of the character of lasting spores are demonstrable. In lymphatic leukemia parasites are found only rarely in the peripheral blood. In the blood-forming organs there is found a microphyte, which he designates as hemameba leukemiæ vivax, which is intracellular. There are cases of leukemia in which both of these amebæ can be found in the organs after death. In pseudoleukemia he also finds amebæ in the blood and the organs in every case. The transmission of the infection to susceptible animals is possible. There develops a chronic infectious disease closely related to leukemia. In the blood there takes place more or less marked increase in the number of leucocytes. Amebæ are demonstrable in the blood quite constantly. This infection may be transmitted from animal to animal. The artificial cultivation of the hemameba has not yet been accomplished; further experiments in this line are being made.

The N. Y. State Commission on Lunacy.—From the annual report to the Legislature, April 10, items of much interest may be summarized as follows: The committed insane numbered 22,386 in the State and 855 in private institutions, of the former class the average number treated during the year was 20,635, while the whole number of original admissions was 4473. There were 1757 deaths during the year, and 1,018 were discharged as recovered from the State hospital, while 124 were sent to their homes in other States or foreign countries. The percentage of recoveries on original commitments was 22.76 and the percentage of deaths 39. The net increase in asylum population was 683. The per capita cost for maintenance during the last fiscal year was reduced to $185. The total for employes' wages was $1,323,655 and the total costs for provisions, stores, etc., $1,263,080. The receipts from the State tax amounted to $4,957,684 and the receipts from private and reimbursing patients $244,734. The average daily per capita cost of food supplies is now 18.5 cents and perhaps may be further minimized

after arranging with Prof. W. O. Atwater, the food expert of the U. S. Government, for a dietary for the chronic insane and a separate one for acute or curable insane. Much is expected from the pathologic institute, established in New York city, as here are to be made special studies of diseased brains and other material furnished by the State hospitals. As it is, examinations are now made directly after the admission of patients, of specimens of blood, sputa and bodily secretions.

The Word "Medicine" Broadly Defined.—By special act of 1867 the officers and professors of the Medico-Chirurgical College of Philadelphia had "conferred upon them all the rights, immunities and privileges as to lecturing, granting diplomas and "conferring degrees in medicine as is possessed by the officers and professors of the University of Pennsylvania at this time." In construing this, the supreme court of Pennsylvania says that it takes the word "medicine" in its common signification, which in the beginning—and yet, with most of us—includes all learning having for its object the care of the health and the cure of the ills of the human body. Even within the recollection of some of us, it continues, the practicing physician or family doctor kept in his own office his drugs, compounded them himself, and not seldom maintained a dental chair, wherein he seated his patients, and dosed or extracted their ailing teeth. He had not only been taught dental surgery and pharmacy, but practiced both, under his degree from a college of medicine. Consequently, while a college of dental surgery may be restricted to granting a degree only in that particular branch of the profession, and the narrower will not include the broader field of learning surrounding it, the court holds that the Medico-Chirurgical College has full authority to teach all branches of medicine, including dental surgery and pharmacy, and by necessary implication, under the act of 1867, has the power to certify, by diploma or degree, the proficiency and qualification of the student in that particular branch of the main subject. (Vide JOURNAL, p. 569.)

Burden of Proof as to Certificate.—An appeal to the supreme court of California was taken, after the defendant had been convicted, in the recent case of the People vs. Boo Doo Hong, of the crime of willfully and unlawfully practicing medicine without having first procured a certificate to so practice as required by law. At the trial, uncontradicted evidence had been introduced by the prosecution sufficiently showing that, for several months prior to the filing of the information, the defendant had been practicing medicine at Red Bluff, in Tehama County. But no evidence was introduced on either side showing, or tending to show, that the defendant had or had not a certificate to so practice, as required by law. And, at the conclusion of the evidence, the trial judge instructed the jury, among other things, that the burden was upon the defendant to establish that he had a certificate to practice medicine as provided by law, and that if he failed to prove that he had such certificate, then it must be taken as true that he had not procured a certificate to so practice medicine. This instruction was especially complained of on the appeal, it being contended, on behalf of the defendant, that it was erroneous and misleading, as well as that the verdict was not justified by the evidence, because in a criminal action the defendant is presumed to be innocent until he is proved guilty beyond a reasonable doubt, and this presumption continues throughout the entire trial, and the burden is upon the people to establish his guilt by proving every material allegation of the information. Such is undoubtedly the general rule, the supreme court admits, but adds that there is a well-recognized exception to the rule, where there is a negative averment of a fact which is peculiarly within the knowledge of the defendant. And believing that this exception properly applies to such a case as here stated, the supreme court holds that there was no error in giving the instruction complained of, and that the verdict was justified by the evidence, so that the conviction appealed from must be affirmed.

Resection of Cervical Sympathetic in Epilepsy.—T. Jonnesco reaffirms the great benefits to be derived from total bilateral excision of the three ganglia of the cervical sympathetic with the intermediate connections in epilepsy of not too long duration. He has thus treated forty-two cases of epilepsy with three partial operations. Eighteen of this number have been followed from twenty-four to fifteen months: one six months. Ten have been cured; no seizures since the operation; one with complicating chorea. Six have been much improved and two were not affected; 55 per cent. cured; 28 per cent. improved and 15 per cent. unaffected, a better showing than Jaboulay's statistics quoted in the JOURNAL, p. 435. He asserts that total resection of the cervical chain is the only rational procedure, one side at a time, with a week's interval—a delicate but harmless operation. In old epilepsy with mania or epileptic dementia, the lesions are too extensive for any operation to be effective, but in fresh epilepsy, with or without mania, both the seizures and cerebral psychoses may be completely cured by it. The operation affects reflex gastro intestinal epilepsy by the suppression of the sympathetic route by which the reflexes are transmitted from the viscera to the brain, and it cures the anemic or toxic form by the cerebral congestion induced, which modifies the nutrition of the nerve-cells and frees them from the toxic products invading them. After the first slight lachrymation, etc., on the operated side there are no permanent trophic disturbances nor other post-operative phenomena except a contraction and paresis of the pupil, dropping of the upper eyelid and sinking of the eyeball in the orbit. He has had no deaths among sixty-one patients thus operated (seven for glaucoma, three very much improved), but six epileptics died shortly after in *status epilepticus* or from an acute intercurrent disease. He concludes his report in the *Cbl. f. Chir.* of February 11, by urging the general adoption of this benign operation, observing that one permanent cure of these serious affections outweighs a number in which it may be ineffectual.

Entitled to Test of Own School.—In the recent case of Martin vs. Courtney, the supreme court of Minnesota holds that, in an action for malpractice, a physician or surgeon is entitled to have his treatment of his patient tested by the rules and principles of the school of medicine to which he belongs, and not by those of some other school. To illustrate: The plaintiff in this case called a physician and surgeon of the homeopathic school of medicine, and proposed to have him give his opinion, based upon the plaintiff's testimony, whether the defendant's treatment of a crushed foot had been proper. Objection was made to this, on account of the defendant's being of the allopathic or regular school of medicine. The witness himself testified, on his preliminary examination, that there was a decided difference between the rules and principles of the two schools as respects the "practice of medicine," but not as respects surgery. When inquired of as to whether the two schools differed as to their treatment of sepsis, his testimony was that they had the same rules in regard to the treatment of sepsis connected with surgery; but, where the condition of sepsis has developed a diseased condition, it becomes a question of disease, and not surgery, and in such case the rules of treatment of the two schools of medicine would be entirely different. Then he was permitted to testify as an expert. But the supreme court holds that this was an error. Nor does it consider that it helped the matter any that the witness testified that his "course of instruction had compassed the field of the allopathic course of study." The question of the competency of the witness to testify, it says, was one for the court, and not for the jury, and the defendant should have been permitted to present to the court on the preliminary examination all competent evidence on the question, such as other professional testimony that the two schools were hostile to each other

in their rules as to the treatment of sepsis, even in cases connected with surgery. The competency of the witness, the court adds, did not depend wholly upon his knowledge or skill as a physician and surgeon, but also upon the question whether he would apply the correct rules and principles in giving his opinion as to the defendant's treatment of the case in question.

Right to Practice Medicine not Absolute.—In the but recently reported case of the regular State Board of Medical Examiners vs. Fowler, the supreme court of Louisiana lays down a number of propositions of general interest. It holds that whenever the pursuit of any particular occupation or profession requires, for the protection of the lives or health of the general public, skill, knowledge and other personal attributes or characteristics in the person pursuing it, the general assembly has the power and authority to have recourse to proper measures to insure that none but persons possessing these qualifications should pursue it, and that a statute to that effect is not open to attack as depriving citizens of their right to earn a living. The right to practice medicine, it then declares, is not an absolute natural right, but a right or privilege to be exercised under conditions and limitations regulated by legislative authority. The general assembly having the authority to require, as a condition precedent to the right or privilege of any one to practice medicine in Louisiana, that he should be subjected, before doing so, to a prior examination as to his qualifications, and found and declared worthy and qualified, it has the right to select the particular agency to whom should be delegated that duty. Courts can not control that selection. A statute creating a board of medical examiners, to be composed of physicians recommended for appointment from lists to be furnished by the Louisiana Medical Society and the Hahnemann State Medical Society, to be appointed by the governor on such recommendation, is not open to attack as discriminating in favor of the regular and homeopathic schools against the electic school of medicine. No constitutional right is given particular individuals entertaining peculiar theories of medicine to group themselves together, and calling themselves a special school of medicine under a selected name, to insist that they be recognized and dealt with as such. The action of the medical board of examiners is not conclusive, but is subject to correction in case of abuse. The recognition by the constituted authorities of another State that a person was properly qualified to practice medicine, and that the medical college whose diploma he presents as evidence of the fact was a medical college in good standing, does not carry with it a vested right in the party to practice medicine in Louisiana. Each State acts independently of the other in this matter. Nor is a person who has been practicing medicine as a physician for a number of years, without objection, exempt from complying with legislation of a later date, making it a condition precedent to any one's practicing medicine that he should have been examined by a medical examining board found to have the qualifications required by law for so doing.

Hygiene, etc., at the Paris Exposition of 1900.—A circular has been issued by Howard J. Rogers, director of the exhibit of social economy, hygiene and public charities of the United States Commission, which states that the official classification adopted by the French authorities divides exhibits into eighteen groups. Those under Mr. Roger's care are included in group xvi. The section for social economy will contain exhibits illustrating: 1, the social and economic condition of the laboring classes throughout the world, and 2, the efforts made and institutions founded with a view to ameliorating those conditions. The section for hygiene will contain exhibits illustrating: 1, the most notable recent advances in the science of hygiene, especially those due to American initiative; and 2, applications of this science in promoting the welfare of the individual; in constructing and caring for tenement houses, schools, factories and public buildings; in providing for the sanitation of cities and country towns; and in preventing the introduction of disease into a country at seaports or across frontiers. The section for public charities will contain exhibits illustrating the work which is being done through private initiative, or by public authority, for the protection and relief of the defective, dependent and delinquent classes. These exhibits will represent: 1, the history of this work, including legislation, organization and financial support; 2, aid afforded both children and adults in almshouses, hospitals, dispensaries, asylums, reformatories and other typic institutions; and 3, schools for the blind, the deaf and the feeble minded. The exhibit in each of the three sections of group xvi will be collective and distinctly national in character, i. e., it will contain contributions from a number of different States, cities, institutions and individuals, and these will be combined to form a symmetric whole, in which the parts most strongly emphasized will be those representing lines of work in which the United States is in advance of other nations. The French authorities intend to make social economy one of the most important features of the coming exposition. Their own section will contain exhibits representing the social and industrial life of the laboring classes throughout France—their dwellings, their occupations, their amusements, their peculiar social and economic institutions and various other provisions for their material welfare and their moral and intellectual development. The French exhibit of social economy will thus add a great deal to the significance and value of the entire French section, since it will supplement the commercial and industrial display and aid in their interpretation.

Philadelphia.

MUNICIPAL HOSPITAL.—The City Council's Committee on city property has referred back the resolution which provided for the removal of the Municipal Hospital from its present location to a more desirable site.

MORTALITY STATISTICS.—The total number of deaths occurring in this city during the past week was 505, a decrease of 15 over that of last week, and an increase of 60 over the corresponding period of last year. The principal causes of death were: apoplexy, 22; nephritis, 35; cancer, 11; cerebrospinal fever, 6; tuberculosis, 63; diabetes, 2; heart disease, 37; pneumonia, 62; suicide, 2.

Washington, D. C.

HEALTH OF THE DISTRICT.—The report of the health officer for the week ended April 15 shows the total number of deaths to have been 113, 57 white and 56 colored. There were 9 deaths from cerebrospinal meningitis, 3 from typhoid, and one from scarlet fever. There were 23 cases of smallpox, 28 of diphtheria and 58 of scarlet fever under treatment at the close of the week. The health officer has appointed Dr. French a special medical sanitary inspector to investigate cerebrospinal meningitis in the district. Special cards on the subject have been sent to the different physicians, and they are requested to report all cases of the disease and co-operate with Dr. French in his investigations.

WOMAN'S CLINIC.—The Woman's Clinic, whose active staff is composed solely of women physicians of the district, and whose scope is limited to women's diseases, and those of children under 5 years of age, has been doing some very excellent work in a quiet way, as shown by their recent announcement. During the past eight years the attending staff has treated 22,535 patients, filled 27,579 prescriptions, and accomplished this work at a total expenditure of only $3,986. The source of revenue of the institution during that period was derived from voluntary donations amounting to $937.72 and a ten-cent charge for prescriptions, amounting to $3,048.36. The services of the officers and attending physicians have been gratuitous.

Baltimore.

CITY HOSPITAL.—The Pasteur department of the City Hospital completed the second year of its existence on April 14. In the two years eighty cases in all have been treated and without a single death, and that means without the development

of rabies in a single case. The ages of the patients, mostly from the South, have ranged from 2 to 80 years. The twenty-three days treatment alone is used, and in all cases every effort is made to secure the animal. A constant supply of rabbits is necessary in order to keep up the stock of virus. Two rabbits are inoculated daily, and in all 1460 have been used in the two years. Only the tame animal is used.

HOSPITAL FOR RELIEF OF DEFORMED AND CRIPPLED CHILDREN.—During 1898 there were treated 528 cases, of which 299 were cured, 192 improved and still under treatment, 34 were incurable and 3 died; 250 surgical operations were performed. The charity has sixty five beds available, forty in the city and twenty-five in the mountains. A mountain annex was added during the year at Blue Ridge Summit, Pa., with spacious grounds and thorough hospital equipment. A nurses' home has also been added.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.—At the centennial, April 25–28, Dr. Archer's diploma, the first ever granted in America, and one of the most valued treasures of the faculty was exhibited. The following is a copy:

Omnibus ad quos præsentes Literæ pervenorint, Salutem. Nos Præfectus, Vice-Præfectus, et Professores Collegii et Academiæ Philadelphiensis, testamur Virum ornatum ac ingenuum Johannem Archer apud nos Prælectionibus in Medicina omnium Professorum assidue interfuisse, operamque sedulo navasse, ut Scientiâ Medicâ imbutus atque eruditus discederet, ac postquam, Curriculi sui Spatio peracto, in Aulâ nostrâ coram Curatoribus, multisque aliis Civibus dignissimis ad Examen revocatus, se in omnibus hisce Studiis satis versatum comprobasset, ex Curatorum Mandato in Publicis Comitiis vigilissimo primo Die Junii Anno 1768 celebratis BACCALAUREATUS in Medicinâ Gradum, omniaque Privilegia, et Honores ad hunc Gradum pertinentes consecutum fuisse. In cujus Rei Testimonium his Liberis, majori Collegii et Academiæ Sigillo munitis, Die Annoque prædictis Nomina subscripsimus.

Johannem Morgan, M.D., F.R.S., Theo. & Prax. Med. Professor.
Adam Kuhn, M.D., Mat. Med. & Bot. Professor.
Gul. Smith, Collegii & Acadæ. Præfectus S.T.D.
Fra. Alison, S.T.D. Coll. Vice-Præfect. & Acadæ. Rector.
Eben Kennersley, Ling. Angl. & Orat. Prof.
Gul. Shippen, M.D., Anat. Prof.
Jas. Davidson, Ling. Græc. & Lat. Prof.

Fidem facio Virum ornatum Johannem Archer, Prælectionibus Clinicus et Praxeos Noscomio Philadelphiensi interfuisse et Fructus Diligentiæ suæ uberrimus consecutum fuisse.

Th. Bond (A.M.?), Collegii et Acad. Curator & Prælec. Clinicus.

The Public Service.

Movements of Army Medical Officers under orders from the Adjutant-General's Office to April 20, 1899.

Roger Post Ames, acting asst.-surgeon, from New Orleans, La., to Havana, Cuba, for assignment in the Div. of Cuba.

R. Emmon Austin, acting asst.-surgeon, from Camp Wetherill, Greenville, S. C., to Galveston, Texas, to accompany part of the 10th U.S. Cav. to the Dept. of Santiago, Cuba.

Dallas Bache, colonel and asst. surgeon-general U.S.A., chairman of a board convened at Washington, D. C., to inquire into the methods and practical results of instruction in first aid.

W. C. Borden, captain and asst.-surgeon U.S.A., member of the board to investigate first-aid methods, etc.

John R. Brackett, acting asst.-surgeon, from the hospital ship "Missouri" to Washington, D. C., to report to the surgeon-general.

Fred. J. Combe, major and surgeon U.S.V., to accompany the 10th U.S. Cav. from Ft. Brown to Galveston, Texas, and thence to Santiago, Cuba, for assignment in that Dept.

Edward Everts, captain and asst.-surgeon U.S.A., member of a board in San Francisco, Cal., to examine medical officers for promotion.

W. H. Forwood, colonel and asst. surgeon-general U.S.A., president of a board convened at San Francisco, Cal., to examine medical officers for promotion.

Robt. J. Gibson, major and surgeon U.S.A., from Ft. Meade, S. Dak., to San Francisco, Cal., for assignment in the Dept. of California.

Geo. G. Groff, major and brigade surgeon Vols., former orders discharging him from the volunteer service revoked.

Jefferson R. Kean, lieut.-col. and chief surgeon Vols. (captain and asst.-surgeon U.S.A.), honorably discharged from volunteer service, to take effect April 17, 1899.

Chas. F. Kieffer, captain and asst.-surgeon U.S.A., former orders relieving him from Ft. Meade, S. Dak., to go to San Francisco, Cal., revoked.

Egon A. Koerper, lieut.-col. and deputy surgeon-general U.S.A., member of retiring board convened at Omaha, Neb.

Louis A. La Garde, major and surgeon U.S.A., member of a board to inquire into the methods and practical results of instruction in first aid.

Clarence J. Manly, lieutenant and asst.-surgeon U.S.A., appointed quartermaster and commissary of subsistence of the hospital ship "Missouri" now at Newport News, Va.

John R. McDill, major and brigade surgeon, from 1st Div., 7th Army corps, Camp Columbia, Havana, Cuba, to report to the surgeon-general at Washington, D. C.

Anita Newcombe McGee, acting asst.-surgeon, from Washington, D.C., to Ft. Monroe, Va., and return, on special duty.

Edw. L. Munson, captain and asst.-surgeon U.S.A., to relieve Major Walter Reed, surgeon U.S.A. as member of a board to examine persons designated for appointment as paymasters in the U.S. Army.

Alex. S. Porter, lieutenant and asst.-surgeon U.S.A., to report to the president of the board in San Francisco, Cal., for examination for promotion.

Thos. U. Raymond, captain and asst.-surgeon U.S.A., member of the board in San Francisco, Cal., to examine medical officers for promotion.

Walter Reed, major and surgeon U.S.A., to Havana, Cuba, for duty pertaining to the sanitary inspection of the camps, barracks and hospitals in the vicinity of Puerto Principe and to report on the prevalence of typhoid fever there, and thereafter to return to his station in Washington, D. C.

Wickliffe Smith, major and surgeon 161st Ind. Vol. Inf., leave of absence granted.

Daniel D. Wells, acting asst.-surgeon, from the hospital ship "Missouri," on her arrival at Havana, Cuba, to duty in the Div. of Cuba.

Chas. K. Winne, major and surgeon U.S.A., member of the retiring board convened at Omaha, Neb.

Movements of Navy Medical Officers.—Changes in the medical corps of the U.S. Navy for the week ending April 22, 1899.

Surgeon M. H. Crawford, ordered to duty at the naval recruiting rendezvous, Chicago, Ill.

Asst.-Surgeon J. S. Taylor, detached from the recruiting rendezvous, Chicago, Ill., and ordered to the "Independence" temporarily.

Asst.-Surgeon C. H. DeLancy, detached from the "Amphitrite" and ordered to temporary duty at the marine recruiting rendezvous, Savannah, Ga.

Marine-Hospital Changes.—Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the U.S. Marine-Hospital Service, for the fourteen days ended April 20, 1899.

Surgeon J. H. White, to proceed to Savannah, Ga., for special temporary duty.

Surgeon P. M. Carrington, upon completion of inspection duties to proceed to the Brunswick, Ga., quarantine station, while en route to rejoin station at Washington, D. C., for special temporary duty.

P. A. Surgeon J. O. Cobb, to proceed to Ft. Stanton, N. M., for the purpose of establishing a marine-hospital at that place.

P. A. Surgeon T. A. Wertenbaker, to proceed to Newport News, Norfolk and Portsmouth, Va., for special temporary duty.

P. A. Surgeon J. A. Nydegger, to inspect unserviceable property at Wilmington, N. C.

Asst.-Surgeon H. W. Wickes, granted leave of absence for seven days.

Asst.-Surgeon H. S. Cumming, to proceed to Norfolk, Va., for special temporary duty.

Asst.-Surgeon H. S. Mathewson, to inspect unserviceable property at the San Francisco quarantine station.

Asst.-Surgeon R. H. von Ezdorf, to proceed to Savannah, Ga., for special temporary duty.

Acting Asst.-Surgeon A. P. McConnell, granted leave of absence for four days from April 17, 1899.

Acting Asst.-Surgeon W. H. Marsh, granted leave of absence for five days from April 25, 1899.

Acting Asst.-Surgeon W. C. Todt, granted leave of absence for five days.

Sanitary Inspector D. E. Dudley, to proceed to the Tortugas quarantine station for special temporary duty.

Hospital Steward J. V. La Grange, to proceed to Ft. Stanton, N. M., and report to P. A. Surgeon J. O. Cobb for duty and assignment to quarters.

BOARD CONVENED.

Board convened to meet at Philadelphia, Pa., at 10 o'clock A.M., April 18, 1899, for the physical examination of an officer of the revenue cutter service. Detail for the board: Surgeon H. W. Austin, chairman; Asst.-Surgeon M. J. White, recorder.

APPOINTMENTS.

E. D. Hill of Massachusetts, appointed acting asst.-surgeon U. S. Marine-Hospital Service, for the physical examination of keepers and surfmen in the life-saving service at Plymouth, Mass., and vicinity.

D. C. Howell of Michigan, appointed acting asst.-surgeon U.S. Marine-Hospital Service, for the physical examination of keepers and surfmen in the life-saving service at East Tawas, Mich., and vicinity.

CHANGE OF ADDRESS.

Allen, R. I., from St. Louis, Mo., to Lucas, Ind. Ter.
Andrews, C. F., from Bryson, to Cyrnston, Tenn.
Breniman, E. M., from 308 S. Robey to 642 W. Congress, Chicago.
Curry, E. M., from St. Louis, Mo., to Trinidad, Colo.
Collier, J. M., from Plymouth to Lansing, Mich.
Chesley, V. L., from Manchester to Center Barnstead, N. H.
Carter, G. D., from Saverton to Joplin, Mo.
Colyer, W. A., from St. Louis, Mo., to Atwood, Ill.
Crudup, C. F., from Lainsburg, N. C., to Brock, Neb.
Capehart, P. W., from Washington, D. C., to Kittrell, N. C.
Curlin, C. W., from Nashville, Tenn., to Hickman, Ky.
Duff, J. W. from 2006 Carson St. to 4502 5th Av., Pittsburg, Pa.
Dunham, W. H., from 830 Dayton to 2503 Auburn Av., Cincinnati, Ohio.
Griffin, A. L. M., from 115 N. Jefferson to 419 W. Charles St., Muncie, Ind
Harpole, W. S., from 4238 St. Lawrence Av. to 157 E. 47th St., Chicago.
Hamley, E. C., from Des Moines, to Maquoketa, Iowa.
Hoyt, F. C., from Chicago to Mt. Pleasant, Iowa.
Hurst, R. L., from Nashville, Tenn., to Vaughan, Ark.
Johnston, J. G., from Newberry to Lowryville, S. C.
Kennedy, F. P., from Galveston to Peters, Texas.
Loope, T. E., from Manawa to Iola, Wis.
Le Moyne, F., from 5431 Fifth Av. to 5031 Cassteman St., Pittsburg, Pa
Macy, O. E., from Chicago to Pleasanton, Iowa.
McKown, T. D., from 256 to 252 E. Bennet, Cripple Creek, Colo.
Prestegar, T. T., from 927 to 512 4th St., Sioux City, Iowa.
Pomainville, F., from Chicago to Grand Rapids, Wis.
Russell, H. R., from Chicago to Stewartville, Minn.
Slighton, C. H., from Chicago to 427 Wilson St., Madison, Wis.
Sloan, J. F., from 656 to 684 Adams St., Chicago.
Stagg, W. H., from New Orleans to Washington, La.
Schafinger, C., from Philadelphia, Pa., to Felton, Del.
Williams, R., from Chicago to Carthage, Ill.
Woodard, R. C., from Augusta to Cecil, Ga.